

2009 SEMI-ANNUAL GROUNDWATER MONITORING REPORT
Quality Analytical Services
1633 Marsh Avenue
Blue Summit, Missouri

EPA ID Number MOD073027609

Aquaterra Project Number 2641.11
Prepared: August 2009

Prepared For:

Quality Analytical Services
c/o RDD Family Office LLC
6240 West 135th Street, Suite 150
Overland Park, Kansas 66223

August 27, 2009

Mr. Charles Wetzler
Quality Analytical Services
c/o RDD Family Office LLC
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Overland Park, KS 66223

Re: 2009 Semi-Annual Groundwater Monitoring Report
Quality Analytical Services, Blue Summit, Missouri
EPA ID Number MOD073027609
Aquaterra Project Number 2641.11

Dear Mr. Wetzler:

Aquaterra Environmental Solutions, Inc. (Aquaterra) has prepared this Semi-Annual Groundwater Monitoring Report describing the activities and analytical results of the groundwater monitoring event conducted during May 2009, along with a summary of activities performed at the site during 2009 (to date). If you have any questions or need additional information regarding the data presented, please do not hesitate to contact our office at (913) 681-0030.

Sincerely,
Aquaterra Environmental Solutions, Inc.

Susan L. McCart, P.E. P.G.
Senior Project Manager

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Senior Project Manager/Quality Review

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1.0 INTRODUCTION

The Quality Analytical Services (QAS) site is located at 1633 Marsh Avenue in Blue Summit, Missouri, just southeast of Highway I-435 and Truman Road in western Jackson County. The legal description of the facility is the southeast quarter of Section 6, Township 49 North, Range 32 West, Independence, Jackson County, Missouri. A general site map is presented as **Figure 1, Appendix A**.

1.1 Site Background

The site is the location of a former Resource Conservation and Recovery Act (RCRA) hazardous waste treatment, storage, and disposal (TSD) facility. The facility collected and processed waste oils from 1958 through 1996. During 1998, site closure activities occurred, including the decontamination, dismantling, and proper disposal of above-ground waste oil storage tanks from the former tank farm area and associated waste oil processing equipment. During 2000, impacted soil and concrete were excavated and disposed of from beneath the former tank farm area. The excavated area was backfilled, and a geosynthetic cap, groundwater interceptor trench, and remediation system were installed.

The site is currently following requirements of the approved Post-Closure Plan (Deffenbaugh Industries, Inc., June 2002), which includes operation and maintenance of the groundwater recovery and treatment system and semi-annual groundwater monitoring. This report summarizes the May 2009 groundwater monitoring activities and current groundwater recovery and treatment system operation and maintenance.

On October 24, 2008, Aquaterra Environmental Solutions, Inc. (Aquaterra) provided MDNR and EPA an electronic, draft version of a new *Quality Assurance - Sampling and Analysis Plan* (QA-SAP) prepared for the QAS project. The QA-SAP was prepared as discussed during a July 22, 2008 meeting between QAS, MDNR, EPA, Burns and McDonnell Engineering Company, Inc. (B&M), and Aquaterra to combine, update, and replace the groundwater monitoring specifications currently detailed in Appendix A of the June 2002

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Post-Closure Plan and April 2006 *Final Quality Assurance Project Plan*. A second (electronic) draft was provided to MDNR and EPA on June 22, 2009, addressing and/or including revisions requested by MDNR. The draft QA-SAP currently remains under review; however, the procedures specified in the draft QA-SAP (October 2008) were followed for the May 2009 monitoring event.

Semi-annual groundwater monitoring activities were conducted during May 2009. This report summarizes the semi-annual groundwater monitoring activities and current groundwater recovery and treatment system operation and maintenance.

1.2 Groundwater Monitoring

There are 24 groundwater monitoring wells associated with the QAS site. The well locations are depicted on **Figure 2, Appendix A**. One monitoring well (GW-1) is located upgradient of the groundwater contaminant plume. Four monitoring wells (EPA-R-3, GW-2R, GW-5, and GW-7) are located cross-gradient of the groundwater contaminant plume. The remaining 19 monitoring wells are located within or downgradient of the groundwater contaminant plume. Four monitoring wells (EPA-R-1, GW-2R, GW-3, and GW-4) currently or have previously contained free product. In addition, there are four groundwater extraction wells (PW-1 through PW-4) located within the groundwater contaminant plume for the collection of impacted groundwater.

The 24 monitoring wells and four extraction wells are monitored semi-annually, during May and November of each year. During November, all 28 monitoring and extraction wells are gauged and sampled. During May, all wells are gauged, but only 19 are sampled, as summarized below. Wells currently containing free product or that have contained free product in the past are indicated in bold font.

<u>Well ID</u>	<u>Location</u>	<u>Sample in May</u>	<u>Sample in November</u>
EPA-R-1	downgradient		x
EPA-R-3	cross-gradient		x
GW-1	upgradient	x	x
GW-2R	cross-gradient		x
GW-3	downgradient		x
GW-4	downgradient		x
GW-5	cross-gradient	x	x
GW-6A	downgradient		x
GW-6B	downgradient	x	x
GW-7	cross-gradient	x	x

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<u>Well ID</u>	<u>Location</u>	<u>Sample in May</u>	<u>Sample in November</u>
GW-8A	downgradient		x
GW-8B	downgradient	x	x
GW-8C	downgradient	x	x
GW-9A	downgradient		x
GW-9B	downgradient	x	x
GW-10A	downgradient		x
GW-10B	downgradient	x	x
GW-10C	downgradient	x	x
GW-11A	within plume	x	x
GW-11B	within plume	x	x
GW-11C	within plume	x	x
GW-12A	downgradient	x	x
GW-12B	downgradient	x	x
GW-12C	downgradient	x	x
PW-1	within plume	x	x
PW-2	within plume	x	x
PW-3	within plume	x	x
PW-4	within plume	x	x

In addition, samples are collected semi-annually from the interceptor recovery trench sump and from the treatment system effluent.

1.3 Groundwater Recovery and Treatment System

During closure of the facility in 2000, a groundwater interceptor trench was installed as an interim measure (IM) to extract contaminated groundwater and light non-aqueous phase liquid (LNAPL), also referred to herein as free product. The trench is located north of the QAS building and runs adjacent to the west fence line as shown on **Figure 2, Appendix A**. The IM was enhanced in 2002 by the installation of groundwater extraction wells PW-1 and PW-2 and again in 2003 with the installation of extraction wells PW-3 and PW-4. The extraction wells are located near the downgradient edge of the contaminant plume, at the locations shown on **Figure 2, Appendix A**.

Groundwater is pumped from the trench and extraction wells using pneumatic pumps. The groundwater is pumped to a 1,500-gallon polyethylene equalization (EQ) tank located inside the QAS building. From the EQ tank, the groundwater is pumped through two granular activated carbon (GAC) vessels for treatment prior to discharge into the sanitary sewer. The system is automated and operates continuously. Total flow through the system is dependant on groundwater yield and averages approximately 10,000 to 12,000 gallons per

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day (gpd). The discharge volume and water quality are monitored under a permit issued by the City of Kansas City, Missouri.

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2.0 MONITORING ACTIVITIES

2.1 Semi-Annual Activities

In general accordance with the draft *Quality Assurance – Sampling and Analysis Plan* (QA-SAP, October 2008), Aquaterra performed the following semi-annual monitoring activities during May 2009:

- Visually evaluated conditions of the monitoring network wells, including the well casings, vaults, pads, and areas surrounding the wells.
- Measured the static water levels and/or product levels from 28 monitoring locations.
- Purged three well volumes (if sufficient recharge) from 15 monitoring locations using disposable bailers. One monitoring location did not recharge sufficiently to purge three well volumes; this well was purged until dry.
- Collected water quality field parameters during purging, including pH, conductivity, and temperature.
- Containerized the purge water and disposed through the existing water treatment system on site.
- Collected groundwater samples from 15 monitoring wells, four extraction wells, the trench sump, and the system effluent sample port.
- Collected and/or submitted quality control/quality assurance water samples consisting of one duplicate, one equipment rinsate, two trip blanks, and one matrix spike/matrix spike duplicate.
- Submitted samples from each of the 21 locations to Environmental Science Corp (ESC) in Mt. Juliet, Tennessee for volatile organic compounds (VOCs) and total metals analyses.
- Submitted samples from nine select locations to ESC in Mt. Juliet, Tennessee for low-level 1,4-dioxane analysis.

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2.2 Deviations from Approved Plans

The monitoring event was performed in general accordance with the draft QA-SAP (October 2008), with the following exceptions:

- Total depths were not measured in the four extraction wells (PW-1, PW-2, PW-3, and PW-4).
- The depth to water could not be determined in monitoring well GW-3. This monitoring well contains free product which is very viscous and oily. The product adhered to the oil/water interface probe; therefore, the water interface was not discernable.
- Groundwater levels were not measured at all locations from within a groundwater horizon prior to initiating purging and sampling activities. Rather, the groundwater measurements were collected from a particular location, that location was purged and sampled, and then the field crew proceeded to the next location. However, the groundwater measurements were collected within a 24-hour period.

Additionally, the following activities were not performed, which are specified in the currently approved *Groundwater Monitoring and Sampling Plan* (SAP, Appendix A of the *Post-Closure Plan*, Deffenbaugh Industries, Inc., June 2002) and the *Final Quality Assurance Project Plan* (QAPP, Shaw Environmental, April 2006), but are not specified in the draft QA-SAP (October 2008):

- The breathing zone was not monitored at the wells during the field activities.
- Total depths were not measured in the four wells containing dedicated sampling pumps (EPA-R-1, GW-2R, GW-3, and GW-4). As stated in the draft QA-SAP, dedicated micro-purge pumps are installed in these wells. To obtain total depth measurements, the pumps would have to be removed and re-installed, which would smear free product into the underlying groundwater. Therefore, the draft QA-SAP does not specify collecting total depth measurements from wells EPA-R-1, GW-2R, GW-3, and GW-4.
- Turbidity measurements were not collected during the purging activities.
- Samples were not submitted for dissolved metals analysis.

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- The bailers were disposed of following sampling activities; bailers did not remain on site or in the monitoring wells for re-use.
- A “field blank” quality control sample was not collected, submitted, or analyzed.
- A Level 4 Quality Control report was not requested from the laboratory. Data validation was performed in accordance with the draft QA-SAP (October 2008).

Aquaterra is not aware of any other deviations from the draft QA-SAP (October 2008) or approved plans.

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3.0 MONITORING NETWORK

3.1 Well Locations and Designations

The monitoring network consists of 28 locations, including monitoring and groundwater extraction wells. Twenty-four of the monitoring network wells are considered to be completed in one of three groundwater horizons, as indicated below:

A-Horizon (14)

This groundwater horizon consists of silts and clays, and is located from the ground surface to depths ranging from 25 to 40 feet below ground surface (bgs).

EPA-R-1	GW-6A
EPA-R-3	GW-7
GW-1	GW-8A
GW-2R	GW-9A
GW-3	GW-10A
GW-4	GW-11A
GW-5	GW-12A

B-Horizon (6)

This groundwater horizon consists of silts and sands, grading to sands and gravels with depth, and is located from 25 to 40 feet bgs to approximately 75 feet bgs, or bedrock.

GW-6B	GW-10B
GW-8B	GW-11B
GW-9B	GW-12B

C-Horizon (4)

This groundwater horizon consists of an approximate 5-foot thick fine-grained sand lens, located approximately 40 to 50 feet below ground surface, hydraulically separating the A and B horizons.

GW-8C	GW-11C
GW-10C	GW-12C

The four groundwater extraction wells (PW-1 through PW-4) are completed through all three groundwater horizons.

3.2 Well Conditions

During the May 2009 monitoring activities, the monitoring locations were observed to be in good condition. No potential compromises were noted.

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During the May 2009 monitoring activities, total depths were measured at 17 monitoring locations and compared to the initial total well depths. Based on the comparison, the sediment thickness within the screened portion of the well was calculated for each location. During the field activities, the field crew contacted the Aquaterra project manager to provide the total depth measurements for wells previously identified as having significant sediment or potential anomalous measurements. It was determined that three monitoring wells needed to be re-developed due to sedimentation in the well: MW-6B, MW-9B, and MW-11B. The wells were re-developed as described in the draft QA-SAP (October 2008 and revised June 2009 versions).

A summary of the percentage of sediment thickness (following re-development if applicable) is provided in **Table 1 (Appendix B)**. As shown on the table, the percent of sediment calculated ranged from -10 to 18 percent. Negative numbers (calculated for six locations) represent measurements that are deeper than the initial total depth measurement.

The approved plans for the facility do not currently specify a re-development trigger based on sedimentation in the well. However, common industry practice relies on a sediment limit of 25 percent, as is indicated in the draft QA-SAP (October 2008 and revised June 2009 versions). As stated above, monitoring wells MW-6B, MW-9B, and MW-11B were re-developed during the May 2009 monitoring event, based on their total depth measurements and calculated sedimentation in the wells. Their new total depth measurements following re-development are noted on **Table 1 (Appendix B)** as the "initial" total depths for future sedimentation calculations.

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4.0 GROUNDWATER FLOW AND GRADIENT EVALUATION

Groundwater elevations were measured by Mr. Bryan Ross and Mr. Joseph Wuertz of Aquaterra in 27 monitoring locations on May 11 and 12, 2009, within a 24-hour period. The measurements are summarized on **Table 1, Appendix B**. The following paragraphs summarize the groundwater elevations in the A, B, and C horizons, groundwater flow direction, horizontal and vertical gradient evaluations, and horizontal and vertical groundwater velocity evaluations.

4.1 A-Horizon Groundwater Elevations

The groundwater elevations in the A-Horizon ranged from a high of 786.11 feet in upgradient monitoring well GW-1, to 743.44 feet in the furthest downgradient well, GW-12A. Groundwater flows west, toward the Blue River, located approximately 600 feet west of the site. Groundwater elevations measured on May 11 and 12, 2009 are shown on **Figure 3A, Appendix A**.

The horizontal gradient of the A-Horizon was calculated by dividing the vertical difference in the groundwater elevations between GW-1 and GW-12A, by the horizontal distance between the two wells. The horizontal gradient was also calculated using wells GW-8A and GW-10A, compared to GW-12A. The horizontal gradient averaged 0.058 feet/foot, as shown on **Table 2, Appendix B**.

4.2 B-Horizon Groundwater Elevations

The groundwater elevations in the B-Horizon ranged from a high of 750.44 feet in monitoring well GW-11B, to 744.27 feet in the furthest downgradient well, GW-12B. With the exception of monitoring well GW-12B, the elevations in the B-Horizon are approximately 9 feet lower than the elevations in the A-Horizon. Groundwater flows west, toward the Blue River. Groundwater elevations measured on May 11 and 12, 2009 are shown on **Figure 3B, Appendix A**.

The horizontal gradient of the B-Horizon was calculated by dividing the vertical difference in the groundwater elevations between GW-6B and GW-12B, by the horizontal distance between the two wells. The horizontal gradient was also calculated using wells GW-8B and GW-10B, compared to GW-12B. The horizontal gradient averaged 0.020 feet/foot, as shown on **Table 2, Appendix B**.

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4.3 C-Horizon Groundwater Elevations

The groundwater elevations in the C-Horizon ranged from a high of 756.16 feet in monitoring well GW-11C, to 747.06 feet in the furthest downgradient well, GW-12C. With the exception of GW-12C, the elevations in the C-Horizon are approximately 2 to 7 feet lower than the elevations in the A-Horizon, and approximately 2 to 6 feet higher than the elevations in the B-Horizon. Groundwater flows west-northwest, toward the Blue River. Groundwater elevations measured on May 11 and 12, 2009 are shown on **Figure 3C, Appendix A**.

The horizontal gradient of the C-Horizon was calculated by dividing the vertical difference in the groundwater elevations between GW-11C and GW-12C, by the horizontal distance between the two wells. The horizontal gradient was also calculated using wells GW-8C and GW-10C, compared to GW-12C. The horizontal gradient averaged 0.024 feet/foot, as shown on **Table 2, Appendix B**.

4.4 Vertical Gradient Evaluation

The vertical hydraulic gradient between the A and C horizons, and the B and C horizons, was determined using the change in static water levels between the horizons at the GW-8, GW-10, GW-11, and GW-12 well clusters. The change in water level was divided by the vertical distance between the top of the two well screens.

The calculated vertical gradient between the A and C horizons is generally downward, with an average gradient of 0.061 feet/foot, as shown on **Table 2, Appendix B**. However, the vertical gradient at well cluster GW-12 is upward, which is consistent with previous monitoring events. The calculated vertical gradient between the B and C horizons is also generally downward, with an average gradient of 0.193 feet/foot, as shown on **Table 2, Appendix B**.

4.5 Horizontal Groundwater Velocity

The horizontal groundwater velocity was computed for the A-Horizon using the average linear velocity formula, that is hydraulic conductivity times the average horizontal gradient, divided by the effective porosity. The hydraulic conductivity of a typical silty clay found in the A-Horizon at QAS, as suggested by MDNR, is approximately 1.5×10^{-4} centimeters per second (cm/sec), or approximately 0.425 feet per day (ft/day). The effective porosity of the silty clay is estimated by MDNR to be 5 percent. The horizontal velocity of the A-Horizon is estimated to be 0.489 ft/day, as shown on **Table 2, Appendix B**.

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The horizontal velocity was not calculated for the B- and C-Horizons because, at this time, the hydraulic conductivity of the B- and C-Horizons has not been determined.

4.6 Vertical Groundwater Velocity

The vertical groundwater velocity was computed for the A to C-Horizon using the average linear velocity formula, that is hydraulic conductivity times the average vertical gradient, divided by the effective porosity. As stated above in Section 4.5, the hydraulic conductivity of a typical silty clay found in the A-Horizon at QAS is approximately 0.425 ft/day. The effective porosity of the silty clay is estimated by MDNR to be 5 percent. The vertical velocity from the A to C-Horizons ranged from 0.656 to 1.819 ft/day downward in well clusters GW-8, GW-10, and GW-11, and was 1.181 ft/day upward in well cluster GW-12, as shown on **Table 2, Appendix B**.

The vertical velocity was not calculated for the A to B, or B to C-Horizons because, at this time, the hydraulic conductivity of the B- and C-Horizons has not been determined.

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5.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected from 19 monitoring locations, the recovery trench sump, and the system effluent on May 11 and 12, 2009 by Mr. Bryan Ross and Mr. Joseph Wuertz of Aquaterra. The following sections describe the sampling and analytical results.

5.1 Groundwater Sample Collection

The groundwater monitoring wells were purged using disposable bailers to remove a minimum of three well volumes. During purging, the following water quality stability parameters were recorded: pH, specific conductivity, and temperature. Copies of field notes and data sheets are included in **Appendix C**.

Following stabilization (or purge volume) as determined by the water quality parameters, groundwater samples were collected from the 15 monitoring wells. The pumps were operating in the four pumping wells; therefore groundwater samples were collected directly from the spigots at each wellhead, without purging. A groundwater sample was collected from the recovery trench sample port located at the pump controller, and from the effluent sample port located on the discharge line. Samples containers for volatile organic compounds (VOCs) analysis were filled first, followed by containers for total metals analysis.

Each sample was properly labeled and placed in a cooler with ice for transport to the laboratory under standard chain-of-custody procedures. The samples were shipped to ESC in Mt. Juliet, Tennessee on May 13, 2009.

5.2 Analytical Results

5.2.1 Volatile Organic Compounds

Concentrations of VOCs were not detected in groundwater samples collected from the following nine locations during May 2009: monitoring wells GW-1, GW-5, GW-7, GW-11A, GW-12A, and GW-12B, extraction wells PW-1, PW-3, and PW-4. In the remaining 12 sampling locations, concentrations of benzene, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,4-dioxane, methyl tert-butyl ether (MtBE), tetrahydrofuran, trichloroethene, and vinyl chloride were detected in one or more groundwater sample collected during May 2009, as summarized below:

- **Benzene** was detected in the groundwater sample collected from monitoring well GW-11C at 2.0 micrograms per liter ($\mu\text{g}/\text{L}$).

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- **1,1-DCA** was detected in groundwater samples collected from five locations (monitoring wells GW-6B, GW-8C, GW-9B, GW-10C, and GW-11C), ranging from 1.0 to 84 µg/L.
- **1,1-DCE** was detected in the groundwater sample collected from monitoring well GW-11C at 8.2 ug/L.
- **cis-1,2-DCE** was detected in groundwater samples collected from seven locations (monitoring wells GW-6B, GW-8C, GW-9B, GW-10C, GW-11C, GW-12C, and the effluent sample port), ranging from 1.0 to 340 µg/L.
- **trans-1,2-DCE** was detected in the groundwater sample collected from monitoring well GW-11C at 1.0 ug/L.
- **1,4-Dioxane** was detected in groundwater samples collected from nine locations (monitoring wells GW-6B, GW-8B, GW-8C, GW-9B, GW-10B, GW-10C, GW-11B, GW-11C, and GW-12C), ranging from 8.8 to 1,900 µg/L.
- **MtBE** was detected in groundwater samples collected from eight locations (monitoring wells GW-6B, GW-8C, GW-10B, GW-10C, GW-11B, and GW-11C, extraction well PW-2, and the recovery trench), ranging from 1.1 to 41 µg/L.
- **Tetrahydrofuran** was detected in groundwater samples collected from two locations (monitoring wells GW-10C and GW-11C), at 5.6 and 32 µg/L, respectively.
- **Trichloroethene** was detected in the groundwater sample collected from monitoring well GW-6B at 5.4 ug/L.
- **Vinyl Chloride** was detected in groundwater samples collected from five locations (monitoring wells GW-6B, GW-8C, GW-9B, GW-10C, and GW-11C), ranging from 1.0 to 48 µg/L.

As summarized above, VOCs were not detected in monitoring wells completed in the A-Horizon, with the exception of MtBE detected in the sample collected from extraction well PW-2, which is screened across all three groundwater horizons. The highest VOC concentrations were reported in the groundwater sample collected from monitoring well GW-11C. Isoconcentration maps were prepared for compounds detected in three or more locations. The analytical results are shown on **Figures 4 through 8, Appendix A** and

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summarized on **Table 3, Appendix B**. For clarity due to the multiple detections of 1,4-dioxane, separate maps were prepared for the A, B, and C-Horizons. Copies of the analytical reports are included in **Appendix D**.

5.2.2 Total Metals

Groundwater samples were submitted for analysis of the following ten metals: arsenic, barium, cadmium, chromium, lead, manganese, mercury, nickel, selenium, and silver. Analytical results did not report concentrations of mercury or silver in any of the 21 groundwater samples submitted. The remaining eight metals were detected in one or more of the submitted samples. The analytical results are summarized on **Table 4, Appendix B** and included in the analytical report copies in **Appendix D**.

5.3 Time Series Charts

Time-series charts have been prepared for the following monitoring wells and are included in **Appendix E**:

A-Horizon	GW-12A
B-Horizon	GW-6B, GW-8B, GW-9B, GW-10B, GW-11B, and GW-12B
C-Horizon	GW-8C, GW-10C, GW-11C, and GW-12C

The following seven analytes are included on the time-series charts:

Chloroethane, 1,1-DCA, Trichloroethene (TCE), MtBE, 1,2-Dioxane, cis-1,2-DCE, and vinyl chloride

A-Horizon

No VOC parameters were detected during the May 2009 event in the groundwater sample collected from monitoring well GW-12A, or from any other A-Horizon well sampled, with the exception of MtBE in extraction well PW-2, which is screened across all three groundwater horizons. As shown on the time-series chart for monitoring well GW-12A, concentrations of all seven analytes appear to have remained steady compared to the previous event.

B-Horizon

The concentrations of the graphed analytes generally show an overall decrease over time in the B-Horizon. The general trend in monitoring well GW-11B appears to be increasing; however, the May 2009 results have decreased or remained constant compared to the November 2008 results. Reported concentrations from the May 2009 sampling event increased in monitoring wells GW-6B (1,1-DCA, TCE, vinyl chloride, cis-1,2-DCE, MtBE, and

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1,4-dioxane), GW-9B (vinyl chloride, cis-1,2-DCE, and 1,4-dioxane) and GW-10B (1,4-dioxane) compared with the previous event (November 2008); however, the general trend is declining in the B-Horizon analytical results.

C-Horizon

The concentrations of the majority of analytes graphed in the C-Horizon generally remained constant or decreased. Exceptions include 1,1-DCA, vinyl chloride, cis-1,2-DCE, and MtBE in monitoring well GW-8C; 1,1-DCA and cis-1,2-DCE in monitoring well GW-10C; 1,1-DCA, cis-1,2-DCE, and MtBE in monitoring well GW-11C; and 1,4-dioxane in monitoring well GW-12C. The cis-1,2-DCE concentration appears to follow the vinyl chloride concentration in monitoring well GW-11C; however, cis-1,2-DCE indicates a slight overall increasing trend and vinyl chloride does not appear to increase or decrease. As stated previously, the concentrations in the C-Horizon appear to generally remain constant or decrease.

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6.0 DATA VALIDATION

Ms. Anne Melia, CHMM, of Aquaterra reviewed the analytical data and quality control reports provided by the laboratory. The following sections describe the data validation.

6.1.1 Laboratory Analysis and Monitoring Parameters

As part of the May 2009 groundwater sampling event, groundwater samples and quality control/quality assurance (QA/QC) samples were submitted to ESC in Nashville, Tennessee on May 13, 2009 for analysis by following methodologies:

Methodology:

Appendix IX VOCs, EPA Method 8260

Target Metals, EPA Method 6010

Arsenic, EPA Method 6020

Mercury, EPA Method 7470A

GW-1	GW-10C	PW-2
GW-5	GW-11A	PW-3
GW-6B	GW-11B	PW-4
GW-7	GW-11C	Trench
GW-8B	GW-12A	Effluent
GW-8C	GW-12B	Duplicate (GW-11C)
GW-9B	GW-12C	Equip Rinsate Blank
GW-10B	PW-1	Matrix Spike/Matrix Spike Duplicate (GW-11C)

Methodology:

1,4-Dioxane, EPA Method 8260 (low reporting level)

GW-8B	GW-10B	GW-12A
GW-8C	GW-10C	GW-12B
GW-9B	GW-11B	GW-12C

Additionally, two trip blanks were submitted for the analysis of Appendix IX VOCs by EPA Method 8260.

6.1.2 Chain of Custody (CoC)

All aspects of the CoC forms were properly completed and all analyses were completed as requested.

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6.1.3 Sample Preservation

Samples were received at the laboratory in the appropriate sample containers with proper preservation and at the correct temperature.

6.1.4 Holding Times

All parameters were analyzed within method-required holding times.

6.1.5 Calibration Verification

All initial and continuing calibration verification results were within control limits.

6.1.6 Field Quality Control Samples

Field quality control samples consisted of one rinsate blank sample and one duplicate sample. Additionally, two trip blanks accompanied each cooler containing samples for VOC analysis. The rinsate blank and duplicate samples were submitted for the analysis of target metals and Appendix IX VOCs. The trip blanks were submitted only for the analysis of Appendix IX VOCs. The rinsate blank sample was collected by pouring distilled water over the water level indicator, pump, or other sampling device following decontamination, and allowing the water to flow directly into sample containers.

No parameters were detected in the field quality control blank samples.

Table 5, Appendix B, summarizes field duplicate results for the Appendix IX VOC analysis. Relative percent differences (RPDs) ranged from 0 to 18.7 percent. Sample analysis indicated general agreement. **Table 6, Appendix B**, summarizes field duplicate results for the target metals (total) analysis. RPDs ranged from 0 to 37.6 percent. Only the RPD for arsenic at 37.6 percent exceeded 20 percent. Results of the duplicate analysis are qualitative in nature, and therefore all data is considered acceptable.

6.1.7 Laboratory Method Blanks

No parameters were detected in the method blanks and method blank criteria were within established control limits.

6.1.8 Laboratory Duplicates

All laboratory duplicate sample results were within established control limits.

6.1.9 Laboratory Control Samples/Laboratory Control Sample Duplicates

For laboratory batch WG421706 including the effluent sample, Dup-1, the field blank, and two trip blank QA/QC samples, the Method 8260 VOC analysis laboratory control sample

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(LCS) and laboratory control sample duplicate (LCSD) recoveries for 1,4-dioxane were below established control limits. This indicates potential low bias in the sample results. Affected data results have been qualified as estimated, "J4", by the data validation review.

For laboratory batch WG421799 including sample GW-11C, the Method 8260 VOC analysis the LCS and LCSD recoveries exceeded control limits. This indicates a potential high bias in the sample results. Affected data results have been qualified as estimated, "J4", by the data validation review.

All other LCS/LCSD recoveries were within established control limits. The following table summarizes the LCS/LCSD results.

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary Table

Work Group	Parameter	LCS Percent Recovery	LCSD Percent Recovery	LCS/LCSD Limits	RPD	RPD Limits	Q
WG421706 Effluent, Dup-1, EB-1, Trip Blank 1, Trip Blank 2	1,4-Dioxane	0	0	70-130	0	25	J4
WG421799 11C	1,4-Dioxane	177	178	70-130	0.596	25	J4

Bold text indicates quality control result outside established control limits.

Q – Qualifier

J4 – the associated QC batch was outside the established quality control range for accuracy.

6.1.10 Matrix Spikes/Matrix Spike Duplicates (MS/MSDs)

The groundwater sample collected from well GW-11C served as the site specific MS/MSD.

The method 6010 MS/MSD percent recovery for total arsenic exceeded established control limits. This indicates potential high bias in the sample results, and therefore the affected results have been qualified as estimated, "J5", by the laboratory and the data validation review. The method 6010 MS/MSD percent recovery for total silver was below established control limits. Additionally the MS/MSD relative percent difference exceeded control limits. This indicates potential low bias in the sample results, and therefore the affected results have been qualified as estimated, "J3" and "J6", by the laboratory and the data validation review.

For the method 8260, MS/MSD recoveries for 1,4-dioxane exceeded control limits. This indicates a potential high bias in the sample results. Affected data results above the laboratory reporting limit were qualified as estimated, "J5," by the data validation review.

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The method 8260 MS/MSD relative percent differences for 2-chloroethyl vinyl ether and tetrahydrofuran exceeded control limits. The sample result has been qualified as estimated, "J3", by the laboratory and the data validation review.

The following table summarizes the MS/MSD results.

Matrix Spike/Matrix Spike Duplicate Summary

Sample ID	Parameter	MS Percent Recovery	MSD Percent Recovery	MS/MSD Limits	RPD	RPD Limits	Q
GW-11C	1,4-Dioxane	265	293.692	0-200	0.569	42	J5
	2-chloro ethylvinyl ether	0.173	0	0-200	200	75	J3
	tetrahydrofuran	77.7	129	28-163	30.6	27	J3
	Silver	0.168	3.823	75-125	183	20	J3, J6
	Arsenic	134	126.984	75-125	2.99	20	J5

Bold text indicates quality control result outside established control limits.

Q – Qualifier

J3 – The associated batch QC was outside the established quality control range for precision.

J5 – The sample matrix interfered with the ability to make any accurate determination; the spike value is high

J6 – The sample matrix interfered with the ability to make any accurate determination; the spike value is low

All other MS/MSD results were within required control limits.

6.1.11 Method 8260 VOC Analysis Surrogate Recoveries

All Method 8260 VOC analysis surrogate recoveries were within established control limits.

6.1.12 VOC Internal Standard Responses and Retention Times

Internal standard and retention times for Method 8260 VOC analysis were within established method control limits for all samples and quality control samples.

6.1.13 Data Usability

During this data validation review, quality control results outside established control limits were noted for LCS/LCSD and MS/MSD results. Affected data results have been qualified as noted in this report. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions have been noted by this data validation review. Based on the evaluation completed on this data, sample results are determined to be valid and useable for their intended purposes.

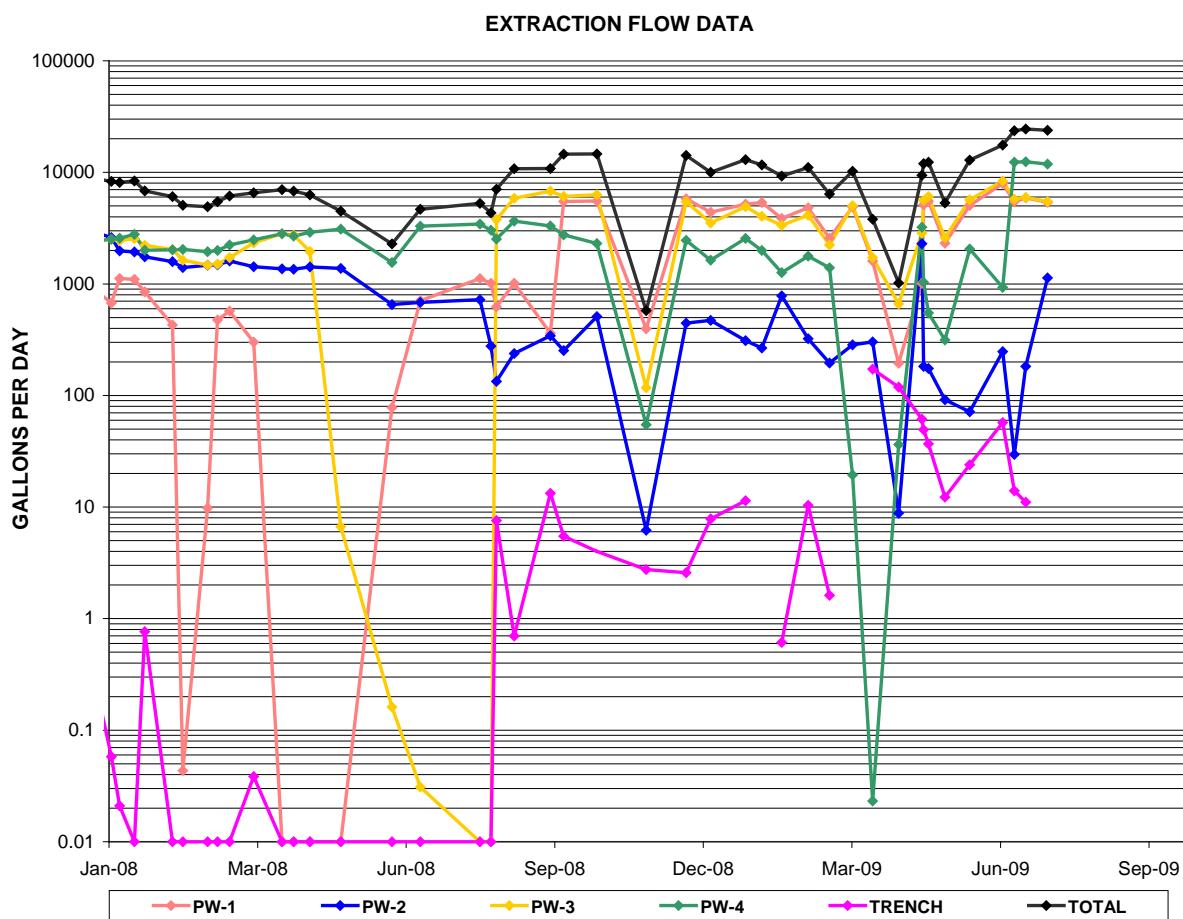
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7.0 GROUNDWATER TREATMENT SYSTEM

The groundwater recovery and treatment system generally operated continuously from January 2009 through July 2009, with brief interruptions for maintenance and repair as further discussed below.

7.1 System Operations

The graph below illustrates the system recovery in gallons per day (gpd) versus time for the time period beginning January 1, 2008 through present. The graph depicts the performance of the pumping system collectively, as well as for each of the extraction wells and the recovery trench individually. Based on flow meter readings, the total recovery averaged approximately 11,900 gpd from January through July 2009.



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7.2 System Maintenance

Numerous maintenance and repair activities have been performed at the site by Aquaterra since from January 2009 to present. The following list briefly summarizes the maintenance and repairs:

- Serviced the compressors, including filling with coolant;
- Backwashed carbon vessels approximately every two weeks;
- Repaired small leak near bottom of sediment filter canister;
- Tested the backflow prevention assembly for the City of Independence Water Department (performed by Advanced Backflow);
- Repaired and re-plumbed piping into filter canister;
- Removed, cleaned, and replaced influent flow meter to EQ tank;
- Removed, cleaned, and replaced regulators for pumps;
- Removed, cleaned, and replaced switches on air dryer;
- Trouble-shot “switching fault” on compressor tower dryer. Replaced two pressure switches in control panel;
- Removed, cleaned, and replaced flow totalizer, which was completely silted up and significantly restricting flow. Totalizer still did not operate properly; therefore, purchased and installed a new flow totalizer;
- Inspected discharge piping and found carbon and silt fouling between GAC discharge and flow meter and between sample port and flow meter. Cleaned piping to remove clogs and restrictions. Resulted in transfer pump operating at 23 gpm;
- Cleaned out piping between backwash discharge and discharge sample port;
- Removed, cleaned, and replaced pumps in PW-1, PW-2, and PW-4;
- Replaced o-ring on pump in PW-1;
- Replaced inlet, lower ball, gaskets, and o-ring on pump in PW-4. Checked cam-rod alignment and condition. Installed new pump in PW-4 on June 24, 2009; and
- Performed lawn maintenance (mowing and weed-eating).

7.3 System Monitoring

Site visits are conducted approximately every two weeks to record flow rates, pumping volumes, water levels, and system operational parameters. Field notes are included in **Appendix C**. During each visit, the following readings are recorded, at a minimum:

- Flow totalizers for each pumping well, the recovery trench, and the discharge line.

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- Water levels in each pumping well and in monitoring wells GW-11A, GW-11B, and GW-11C.
- Carbon vessel and EQ tank pressure gauge readings.
- Other system operational readings and/or measurements to evaluate proper operation.

The hydrographs on the following page illustrate the water levels in monitoring wells GW-11A, GW-11B, and GW-11C, compared to the water levels in the pumping wells PW-1 through PW-4, from January through July 2009. As shown, the water level in the GW-11 series wells generally fluctuates with the water level in the pumping wells.

7.4 Free Product

Four monitoring wells have historically, or currently, contain free product: EPA-R-1, GW-2R, GW-3, and GW-4. During the May 2009 groundwater monitoring activities, the depth to product was measured in each of these four wells. Free product was detected in each of the four monitoring wells. The product thickness in monitoring wells EPA-R-1, GW-2R, and GW-4 was 3.49, 0.07, and 1.74 feet, respectively. The product thickness could not be determined in monitoring well GW-3. This monitoring well contains free product which is very viscous and oily. The product adhered to the oil/water interface probe; therefore, the water interface was not discernable.

It is interesting to note that prior to this event, free product has not been detected in monitoring well GW-2R since at least November 2006 (perhaps even before then). The product detected in monitoring well GW-2R during the May 2009 monitoring event appears to be a very thin sheen. Aquaterra will carefully monitoring the presence or absence of product in monitoring well GW-2R during future events.

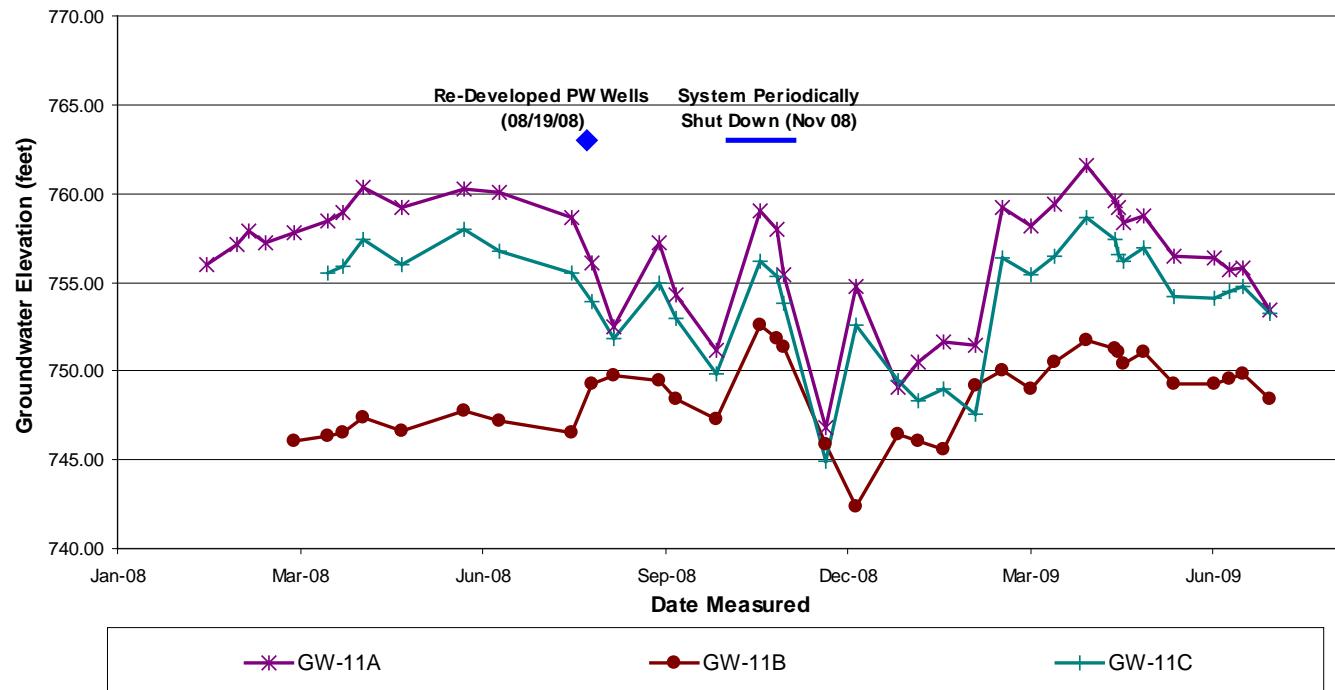
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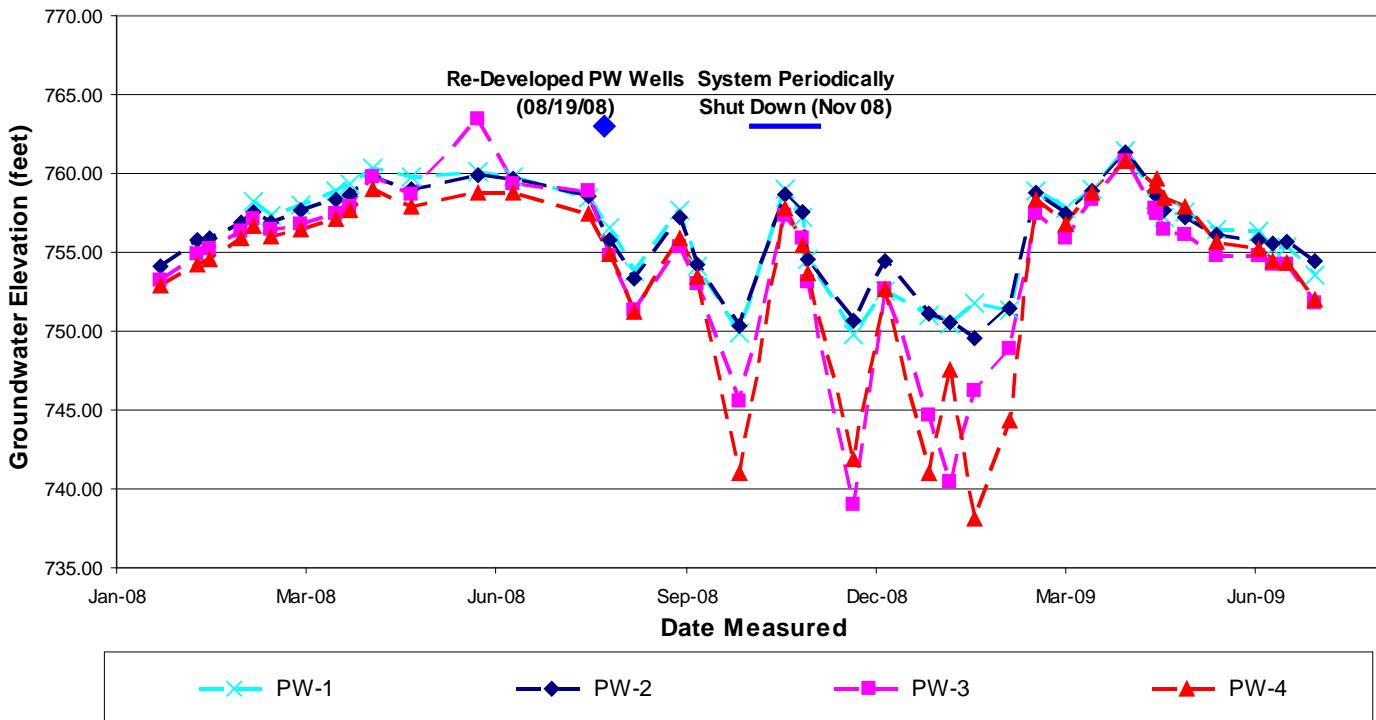
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**Groundwater Elevations
GW-11 Wells**



**Groundwater Elevations
PW Wells**



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8.0 CONCLUSIONS

The May 2009 semi-annual groundwater monitoring event for the QAS site has been completed. The groundwater recovery and treatment system at the site has been maintained and operated by Aquaterra. The monitoring event and system operation observations have established the following:

- The groundwater elevations in the A-Horizon ranged from 786.11 to 743.44 feet. Groundwater flows west, toward the Blue River, located approximately 600 feet west of the site. The horizontal gradient in the A-Horizon averaged 0.058 feet/foot.
- The groundwater elevations in the B-Horizon ranged from 750.44 to 744.27 feet. Groundwater flows west-northwest. The horizontal gradient in the B-Horizon averaged 0.020 feet/foot.
- The groundwater elevations in the C-Horizon ranged from 756.16 to 747.06 feet. Groundwater flows west-northwest. The horizontal gradient in the C-Horizon averaged 0.024 feet/foot.
- Concentrations of VOCs were not detected in groundwater samples collected from the following nine locations during May 2009: monitoring wells GW-1, GW-5, GW-7, GW-11A, GW-12A, and GW-12B, and extraction wells PW-1, PW-3, and PW-4.
- Concentrations of benzene, 1,1-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, 1,4-dioxane, MtBE, tetrahydrofuran, trichloroethene, and vinyl chloride were detected in one or more groundwater sample collected from one or more of the following 12 monitoring locations: GW-6B, GW-8B, GW-8C, GW-9B, GW-10B, GW-10C, GW-11B, GW-11C, GW-12C, extraction well PW-2, and the system recovery trench and effluent sample port.
- Groundwater samples were submitted for analysis of the following ten metals: arsenic, barium, cadmium, chromium, lead, manganese, mercury, nickel, selenium, and silver. Analytical results did not report concentrations of mercury or silver in any of the 21 groundwater samples submitted. The remaining eight metals were detected in one or more of the submitted samples.
- No VOC parameters were detected in groundwater samples collected from A-Horizon wells, with the exception of MtBE detected in extraction well PW-2, which is screened across all three groundwater horizons.

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- VOC concentrations in the B-Horizon wells are generally remaining constant or decreasing over time.
- VOC concentrations in the C-Horizon wells are generally remaining constant or decreasing.
- The total volume of water treated by the groundwater recovery and treatment system averaged approximately 11,900 gpd from January through July 2009.
- A comparison of the water levels in monitoring wells GW-11A, GW-11B, and GW-11C with water levels in the pumping wells PW-1 through PW-4 indicates the GW-11 series wells generally fluctuate with the water level in the pumping wells.
- Free product was detected in monitoring wells EPA-R-1, GW-2R, GW-3, and GW-4. The thickness of the free product in monitoring wells EPA-R-1, GW-2R, and GW-4 was measured at 3.49 feet, 0.07 feet, and 1.74 feet, respectively. The thickness of the product in monitoring well GW-3 could not be determined because the total depth to water could not be recorded.

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9.0 RECOMMENDATIONS

In accordance with the approved Post-Closure Plan, semi-annual groundwater monitoring will continue at the QAS site. The next monitoring event will occur during November 2009. MDNR and EPA are currently reviewing the second draft Quality Assurance and Sampling and Analysis Plan (QA-SAP) prepared by Aquaterra for the facility. Following their review and comment, the QA-SAP will be finalized for approval.

Aquaterra will continue to observe the well conditions for integrity during each monitoring event and make appropriate repairs. Additionally Aquaterra will continue to closely evaluate the total depths of the monitoring wells and re-develop wells with sediment occluding more than 25 percent of the well screens.

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10.0 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist. The information contained in this report is an accurate reflection of the conditions encountered at the site at the time of field work. This report includes an analysis of the available information, and does not reflect any variations of the subsurface which may occur between sampling locations. Actual subsurface conditions may vary and the extent of such variations may not become evident without further investigation.

Conclusions drawn by others from the results of this work should recognize the limitations of the methods used. Please note that Aquaterra does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. This report is prepared in accordance with generally accepted environmentally engineering practices, within the constraints of the client's directives. It is intended for the exclusive use of the client for specific application to the assessed property. No warranties, express or implied, are intended or made.

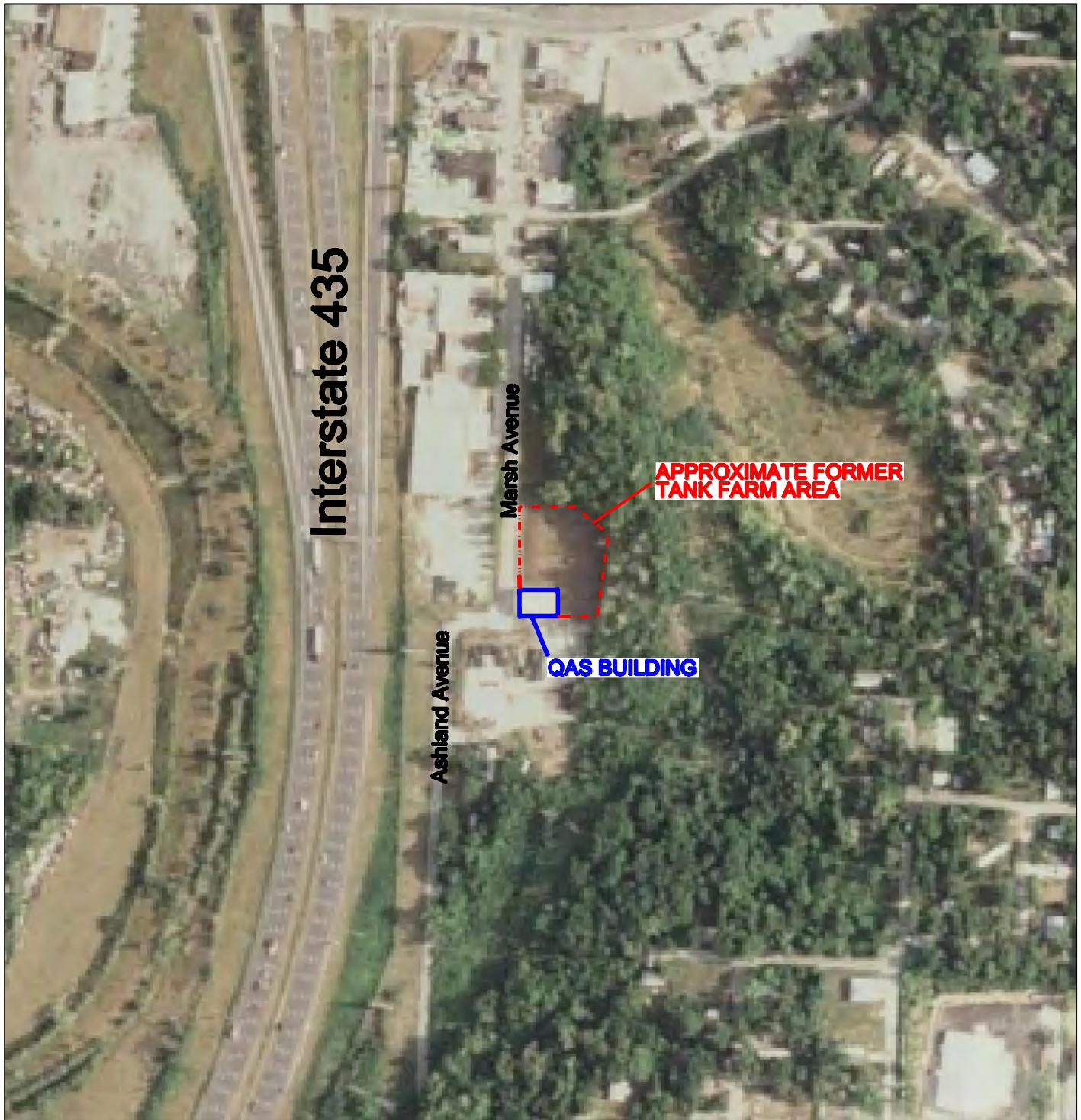
* * * * *

Appendix A

Figures

The following figures are included in this Appendix:

- Figure 1 General Site Location**
- Figure 2 Site Base Map**
- Figure 3A Groundwater Elevations – A-Horizon**
- Figure 3B Groundwater Elevations – B-Horizon**
- Figure 3C Groundwater Elevations – C-Horizon**
- Figure 4 1,1-DCA in Groundwater**
- Figure 5 cis-1,2-DCE in Groundwater**
- Figure 6A 1,4-Dioxane in Groundwater – A-Horizon**
- Figure 6B 1,4-Dioxane in Groundwater – B-Horizon**
- Figure 6C 1,4-Dioxane in Groundwater – C-Horizon**
- Figure 7 MtBE in Groundwater**
- Figure 8 Vinyl Chloride in Groundwater**



AERIAL SOURCE: NAIP (2006)

300 0 300 600

SCALE

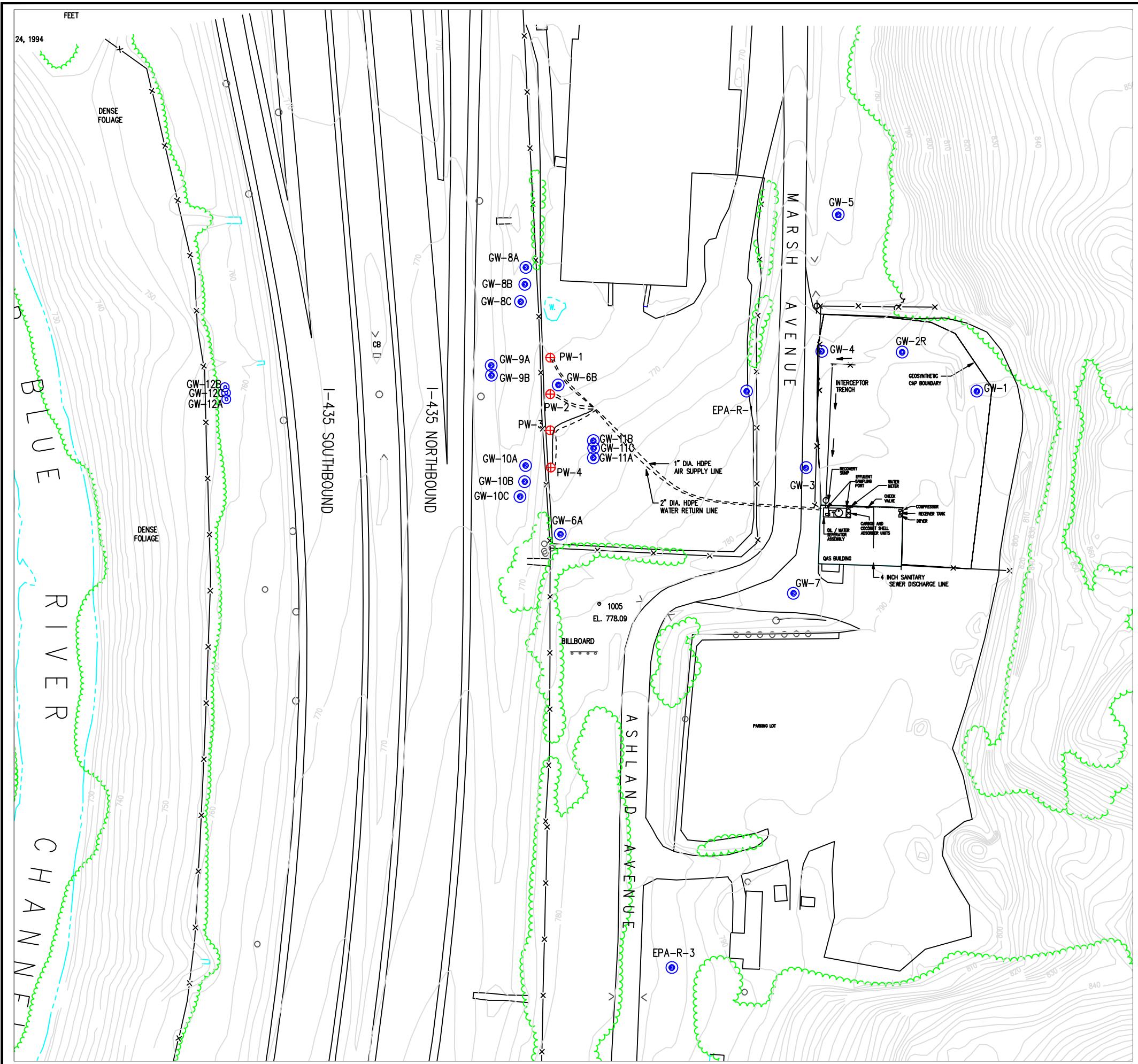
FEET

AQUATERRA

ENVIRONMENTAL SOLUTIONS, INC.
7311 West 130th Street, Suite 100
Overland Park, Kansas 66213

FIGURE 1 – GENERAL SITE LOCATION MAP
QUALITY ANALYTICAL SERVICES
1633 MARSH AVENUE
KANSAS CITY, MISSOURI

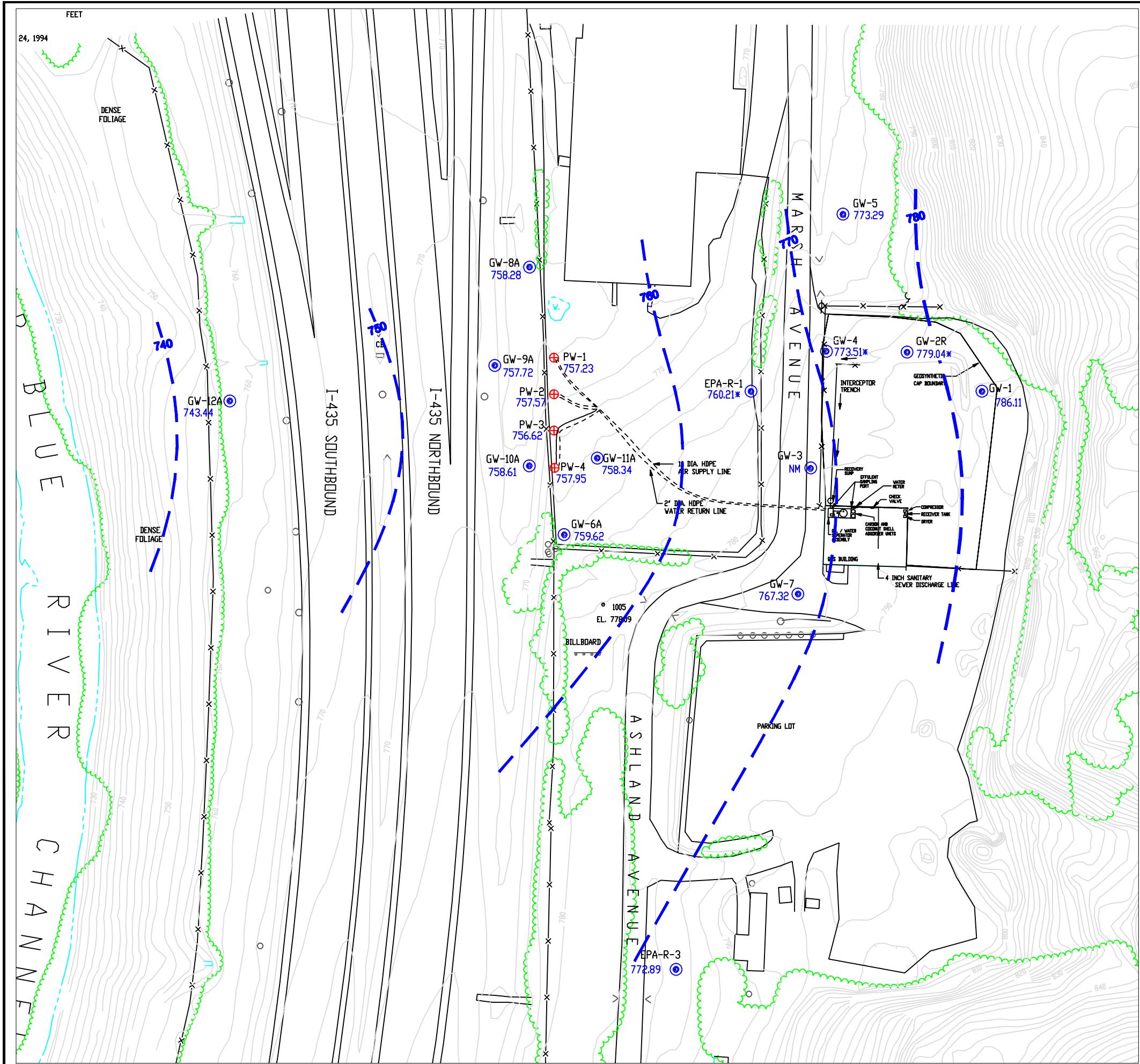
Project Mgr.	SLM	Drawn By	LAM	Designed By	LAM	Project No.	2641.10
Scale	AS SHOWN	Date	8/22/08	File Name	2641.10_FIG1.dwg	Drawing No.	1



LEGEND

EXTRACTION WELLS

MONITORING WELLS



LEGEND

- + EXTRACTION WELLS
- MONITORING WELLS
- NM NOT MEASURED
- 759.24 GROUNDWATER ELEVATION, FEET ABOVE MEAN SEA LEVEL
- * GROUNDWATER ELEVATION HAS BEEN ADJUSTED DUE TO THE PRESENCE OF FREE PRODUCT
- 760-** ESTIMATED GROUNDWATER CONTOUR, 10 FOOT INTERVAL

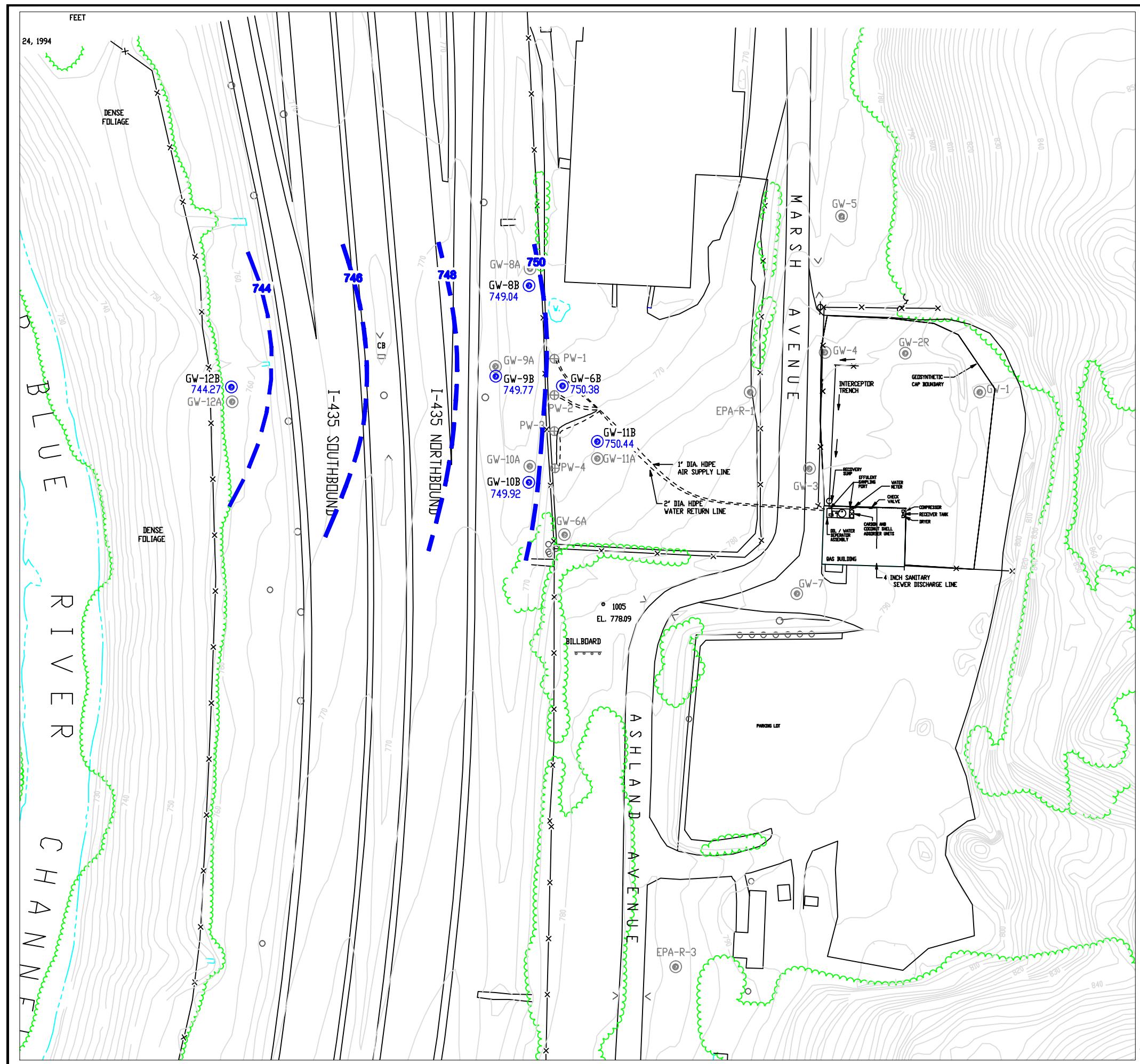
GROUNDWATER MEASURED ON
MAY 11 AND 12, 2009

REV.	DRAWN NUMBER:	FIGURE NUMBER:	CLIENT:	PROJECT NAME:	DATE:	BY:	DESCRIPTION
R5			QUALITY ANALYTICAL SERVICES				
R4			1633 MARSH AVENUE				
R3			KANSAS CITY, MISSOURI				
R2			AQUATERRA ENVIRONMENTAL SOLUTIONS, INC.				
R1			7311 West 130th Street, Suite 100				
RO			Overland Park, Kansas 66213				
REV.	DATE	BY					

AQUATERRA
ENVIRONMENTAL SOLUTIONS, INC.

7311 West 130th Street, Suite 100
Overland Park, Kansas 66213

REV.	DRAWN NUMBER:	FIGURE NUMBER:	CLIENT:	PROJECT NAME:	DATE:	BY:	DESCRIPTION
0	2641.11	FIGURE 3A - MAY09.DWG	QUALITY ANALYTICAL SERVICES		5/20/09		



LEGEND

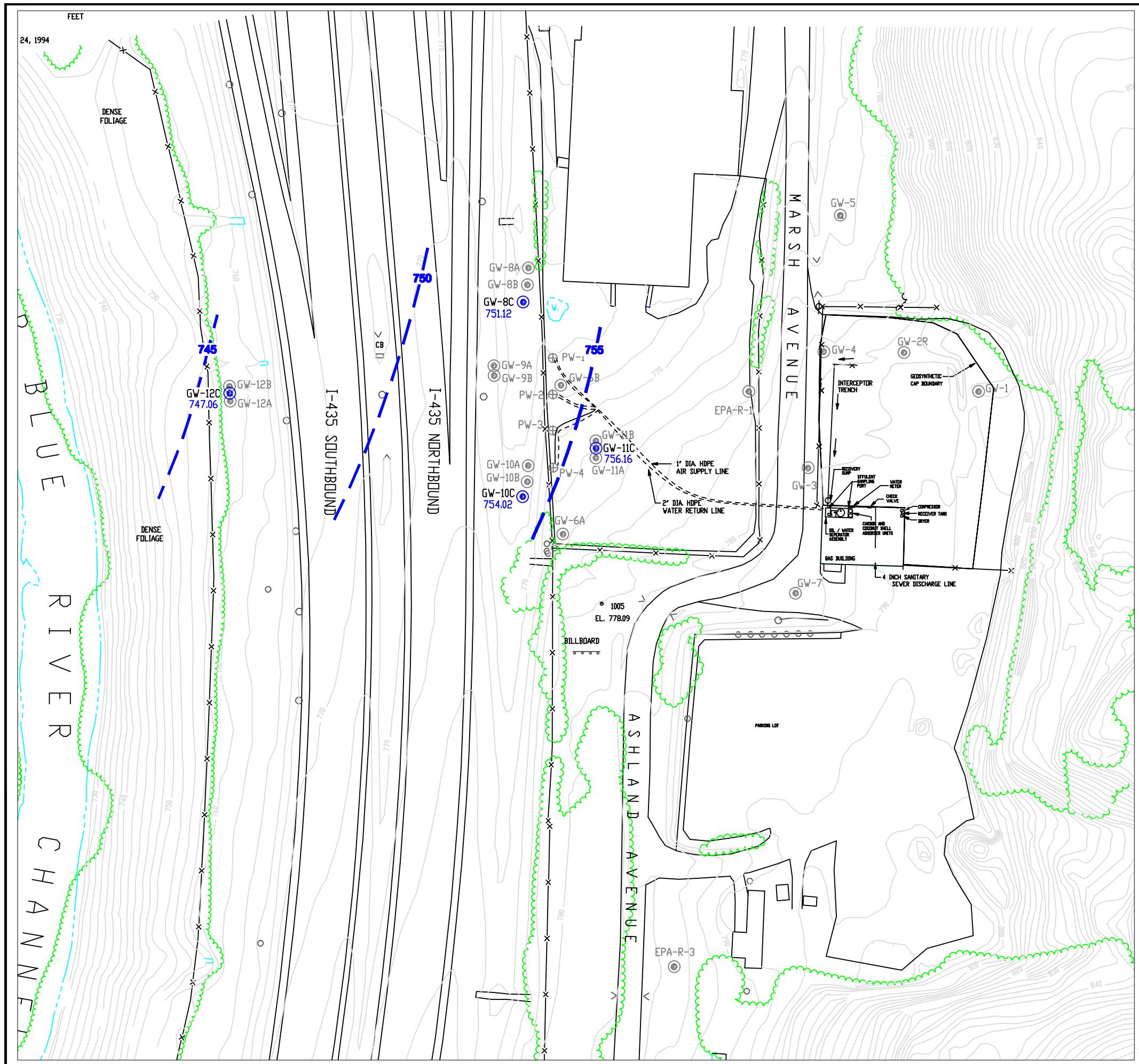
- + EXTRACTION WELLS
 - ⌚ MONITORING WELLS
 - NM NOT MEASURED

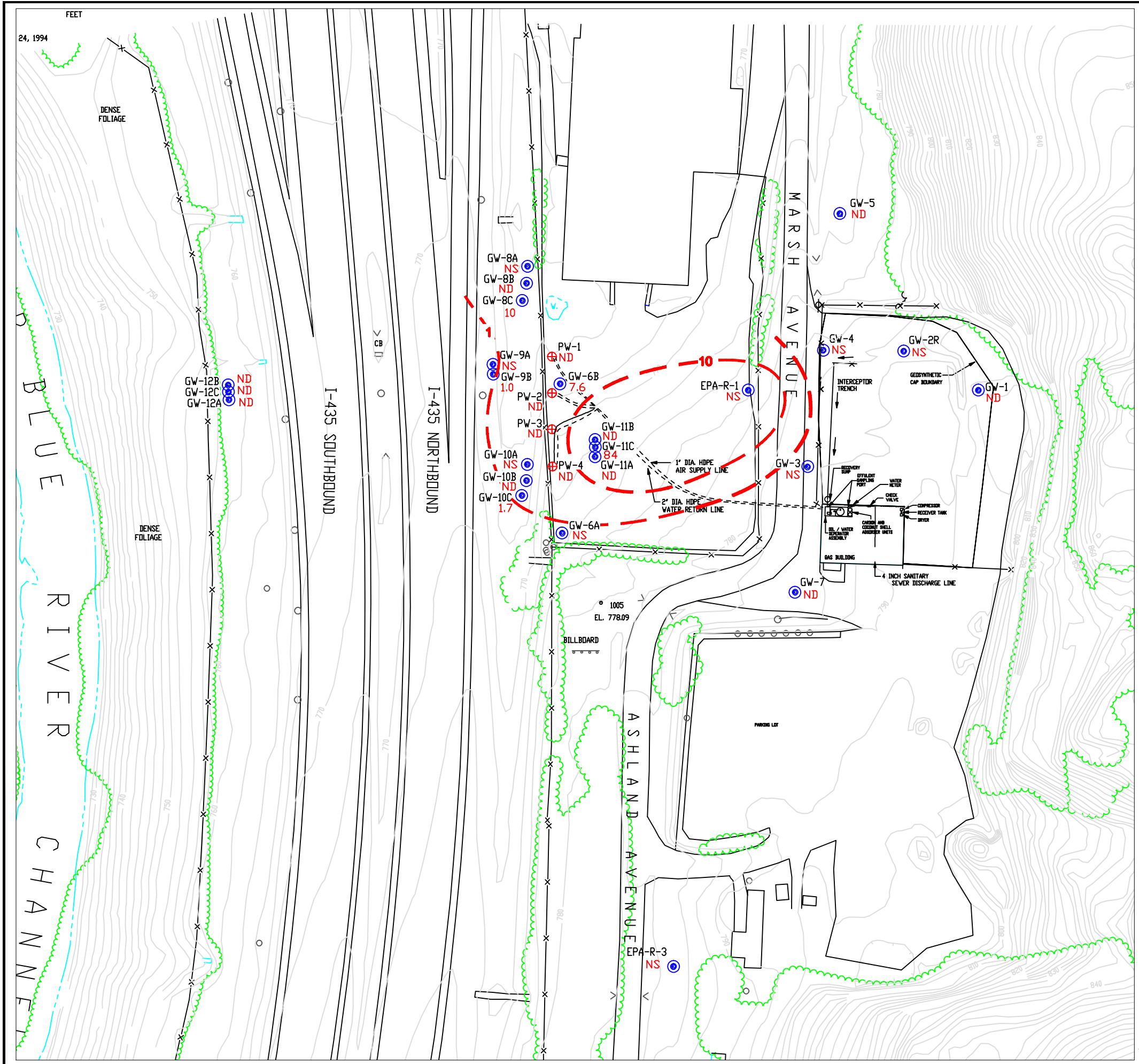
746.26 GROUNDWATER ELEVATION,
FEET ABOVE MEAN SEA LEVEL

746 ESTIMATED GROUNDWATER CON-
2-Foot INTERVAL

GROUNDWATER MEASURED ON
MAY 11 AND 12, 2009

AQUATELLA		ENVIRONMENTAL SOLUTIONS, INC.	
B - HORIZON		7311 West 130th Street, Suite 100 Overland Park, Kansas 66213	
REV:	DRAWING NUMBER:	PROJECT NUMBER:	DATE BY
0	3B	2641.11	5/20/09
FIGURE 3B - GROUNDMATERIAL ELEVATIONS		1633 MARSH AVENUE KANSAS CITY, MISSOURI	
DRAWN BY: LAM		DESIGNED BY: LAM	
ELECTRONIC FILE NAME:		PROJECT NAME: SLIM	
2641.11 FIGURE 3B, MAYOS.DWG			





LEGEND

- ⊕ EXTRACTION WELLS
- ◎ MONITORING WELLS
- ND NOT DETECTED
- NS NOT SAMPLED

1.1 REPORTED 1,1-DCA CONCENTRATION,
IN MICROGRAMS PER LITER (UG/L)

- 10 - ESTIMATED ISOCONTOUR LINE

GROUNDWATER SAMPLES COLLECTED
ON MAY 11 AND 12, 2009

REV.	DRAWING NUMBER	PROJECT NUMBER	CLIENT	DESIGNED BY: LAM	DRAWN BY: LAM	DATE: 5/26/09	DESCRIPTION
R5	-	2641.11	AQUATERRA ENVIRONMENTAL SOLUTIONS, INC.	5BY	R4	-	4BY
R4	-	2641.11		3BY	R3	-	3BY
R3	-	2641.11		2BY	R2	-	2BY
R2	-	2641.11		1BY	R1	-	1BY
R1	-	2641.11		0BY	RO	-	0BY
REV.	FIGURE NUMBER	FIGURE NUMBER	FIGURE NAME	FIGURE NUMBER	FIGURE NUMBER	FIGURE NAME	FIGURE NUMBER
0	4	2641.11	FIGURE 4 - 1,1-DCA IN GROUNDWATER	4	2641.11	FIGURE 4 - 1,1-DCA IN GROUNDWATER	4

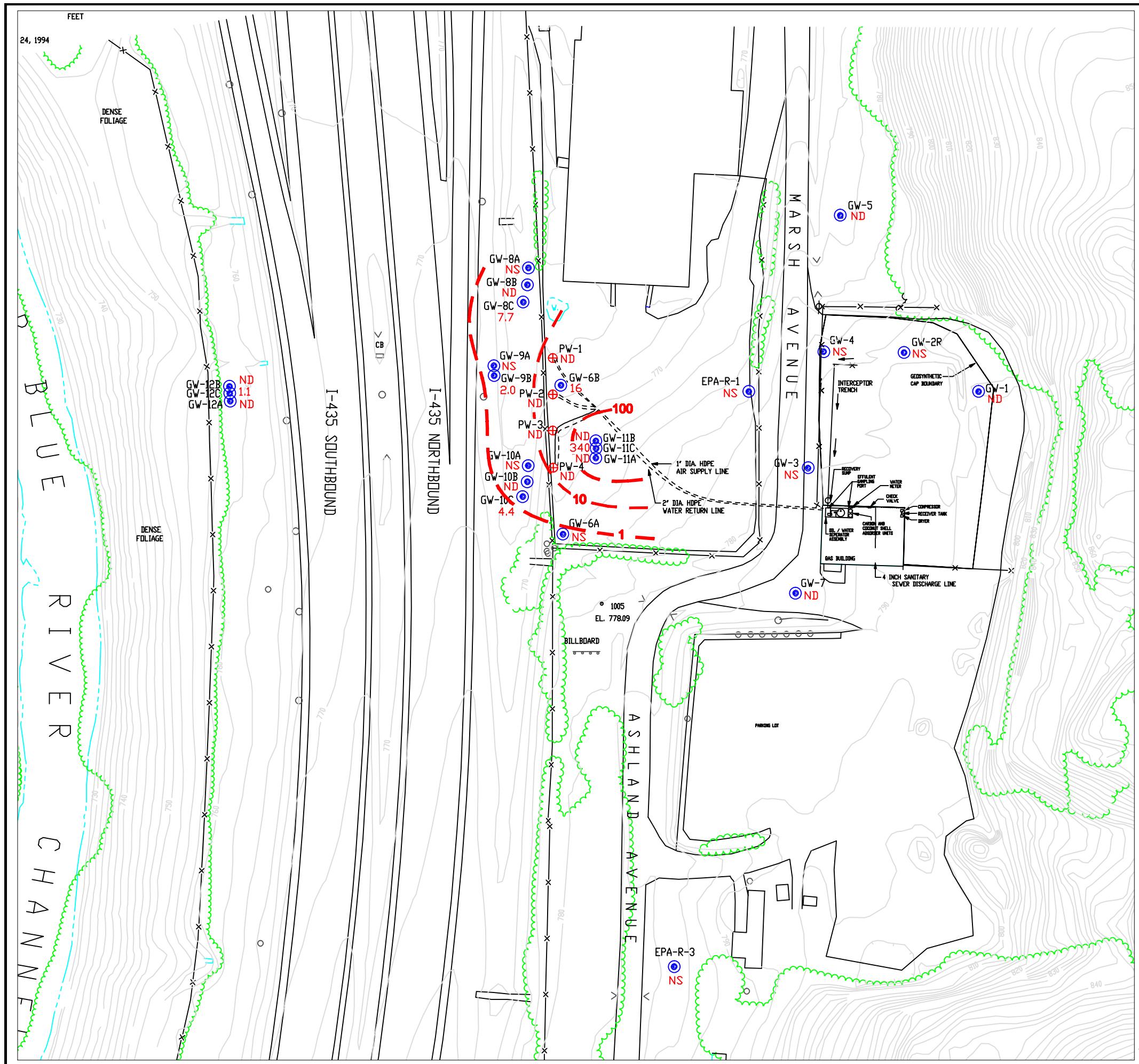
SCALE
0 100 200 FEET

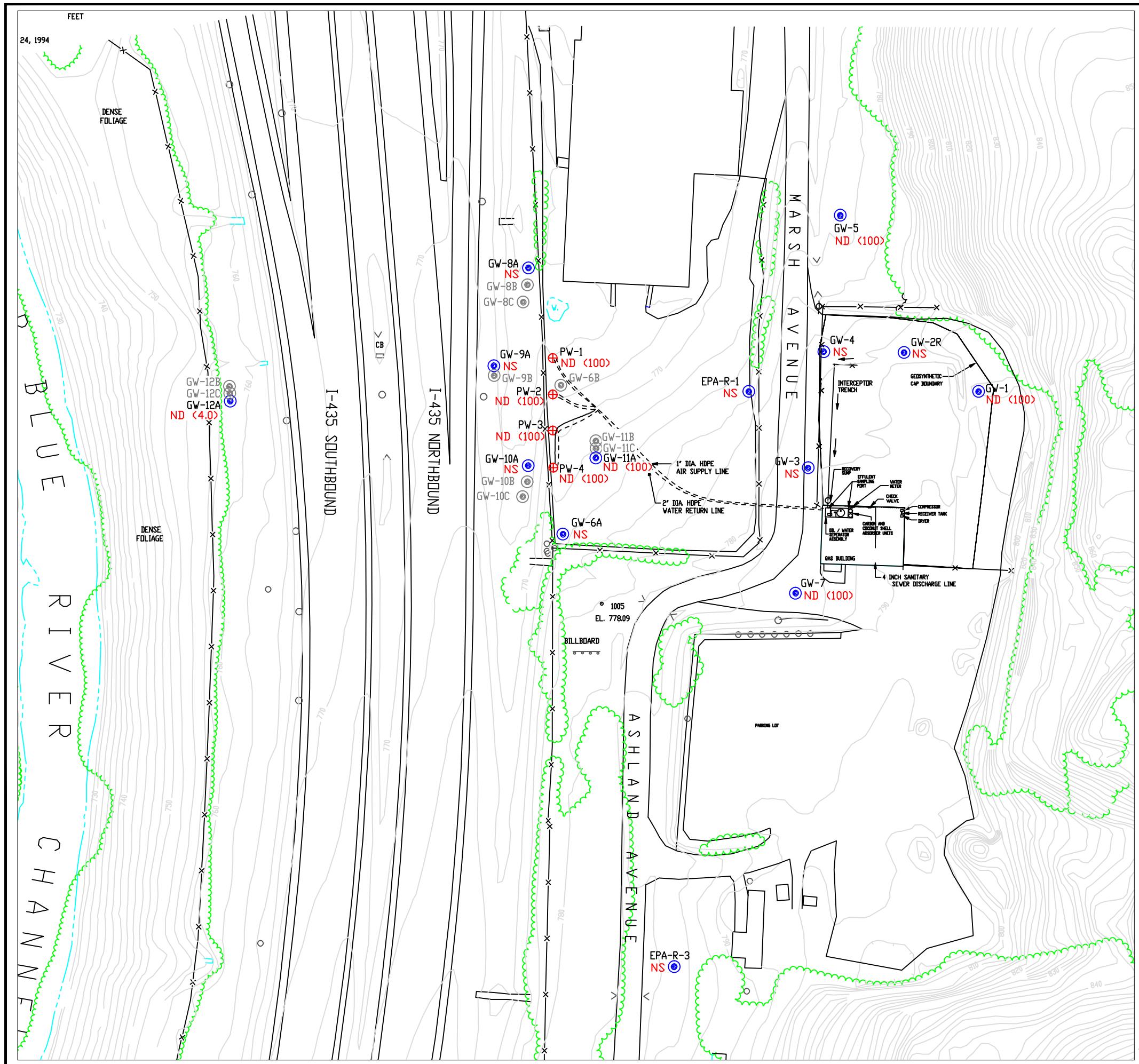
FIGURE 4 - 1,1-DCA IN GROUNDWATER

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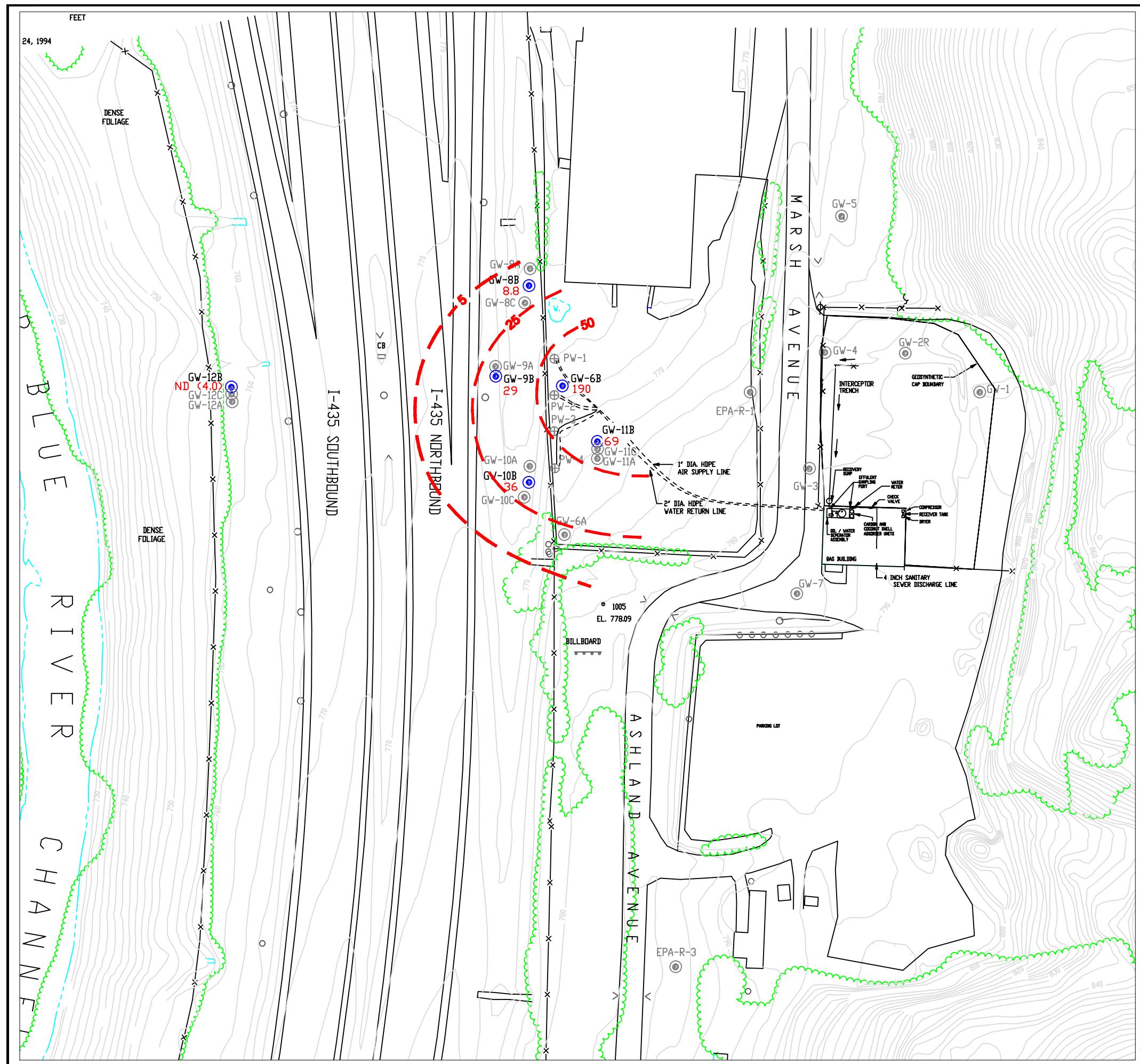


LEGEND

- ⊕ EXTRACTION WELLS
- ◎ MONITORING WELLS
- NS NOT SAMPLED

ND (100) NOT DETECTED ABOVE REPORTING LIMIT

GROUNDWATER SAMPLES COLLECTED
ON MAY 11 AND 12, 2009

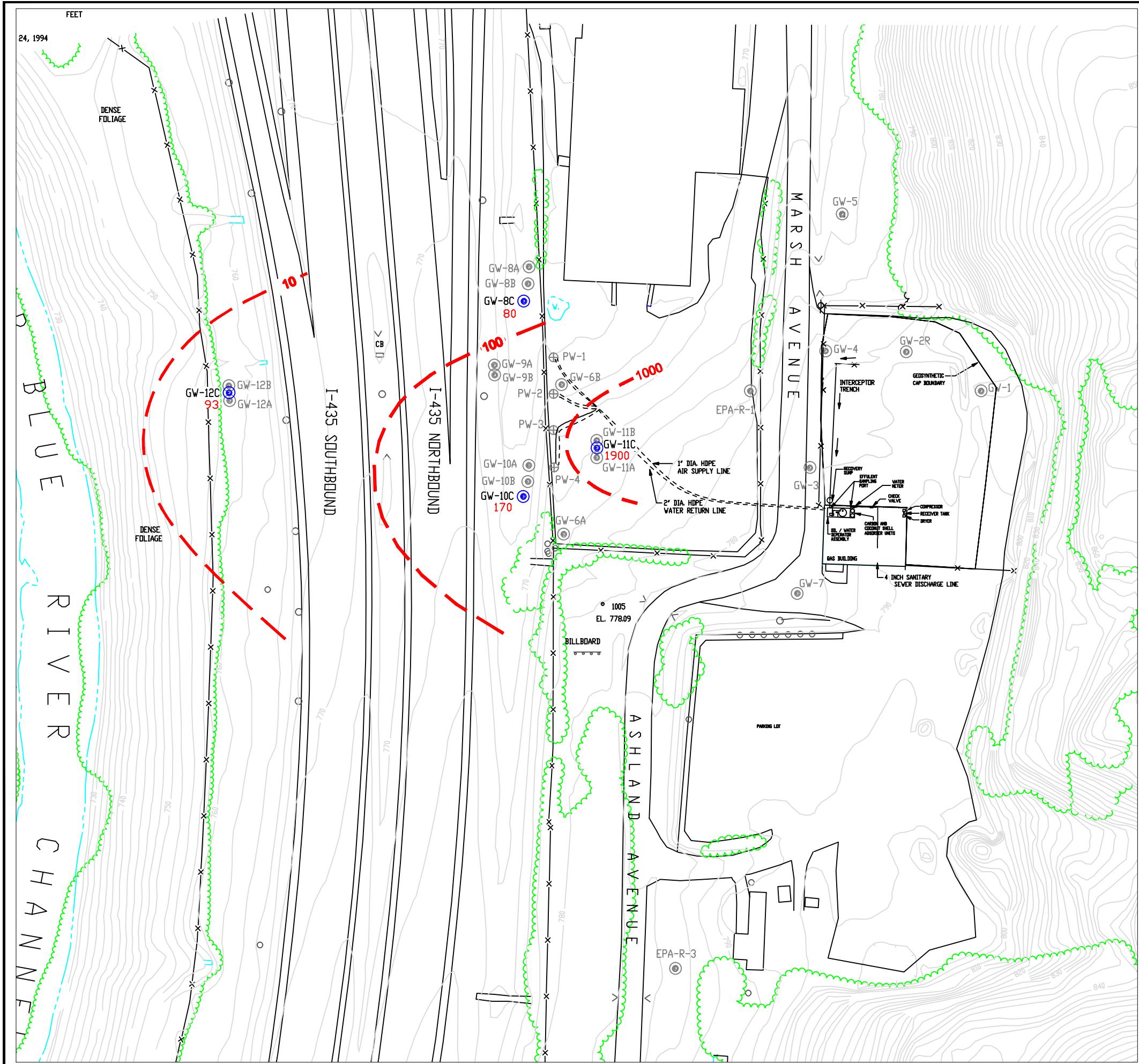


LEGEND

- ⊕ EXTRACTION WELLS
 - ⌚ MONITORING WELLS
 - NS NOT SAMPLED
 - 29 REPORTED 1,4-DIOXANE CONCENTRATION, IN MICROGRAMS PER LITER (UG/L)
 - 50 - ESTIMATED ISOCONTOUR LINE

GROUNDWATER SAMPLES COLLECTED
ON MAY 11 AND 12, 2009

AQUATEERRA		ENVIRONMENTAL SOLUTIONS, INC.	
B-HORIZON		7311 West 130th Street, Suite 100 Overland Park, Kansas 66213	
FIGURE 0D - 1,4-DIOXANE IN GROUNDWATER		PROJECT NO.: SLIM	
1633 MARSH AVENUE KANSAS CITY, MISSOURI		DATE: 5/26/09	
REV:	DRAWING NUMBER:	DESIGNED BY: LAM	PROJECT NO.: SLIM
0	6B	2641.11	2641.11 FIGURE 6B, MAY08.DWG
DESCRIPTION			



LEGEND

⊕ EXTRACTION WELLS

◎ MONITORING WELLS

NS NOT SAMPLED

100 REPORTED 1,4-DIOXANE CONCENTRATION, IN MICROGRAMS PER LITER (UG/L)

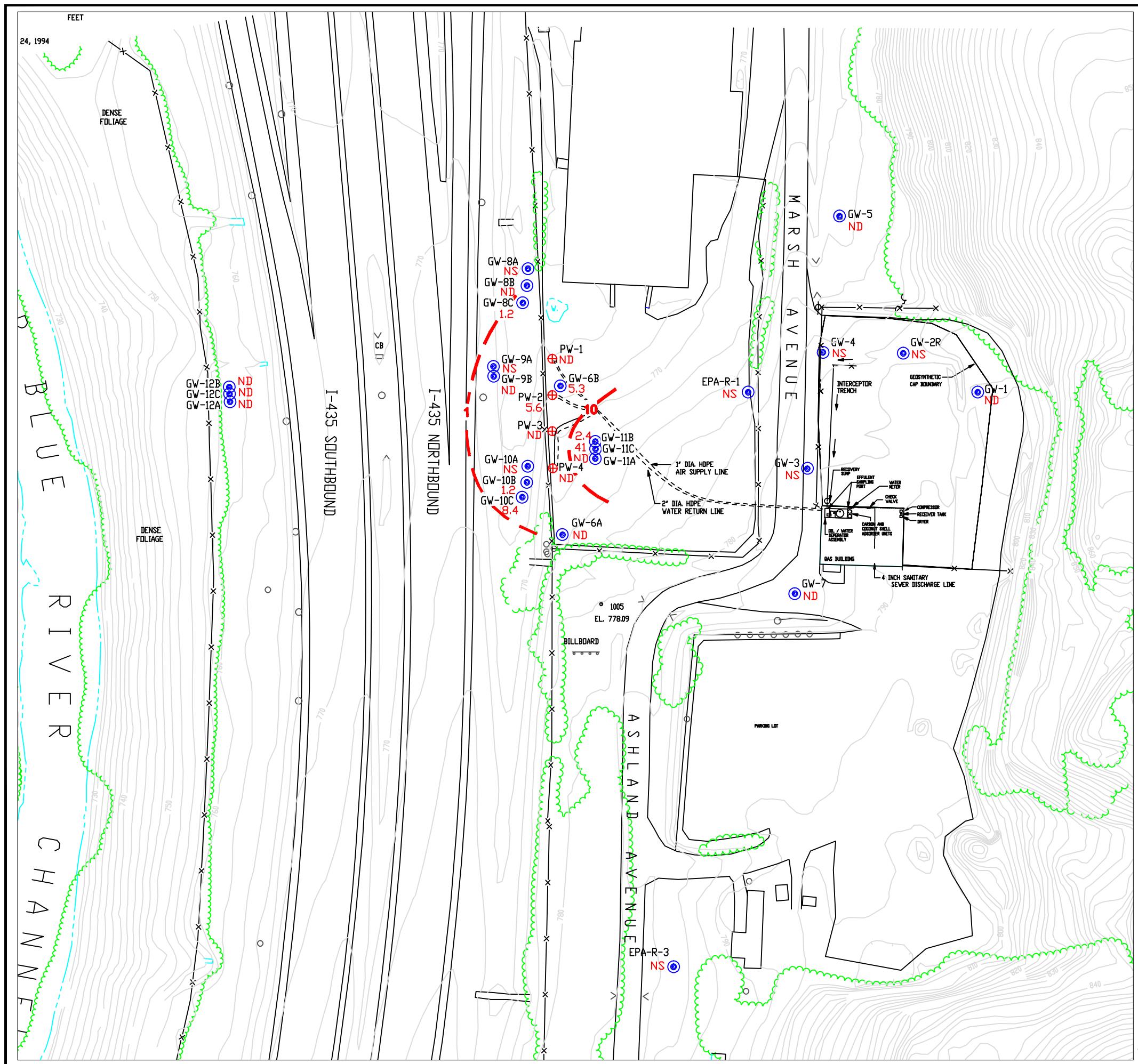
-100- ESTIMATED ISOCONTOUR LINE

GROUNDWATER SAMPLES COLLECTED ON MAY 11 AND 12, 2009

REV.	DRAWING NUMBER	PROJECT NUMBER	FIGURE NUMBER	DATE	BY	DESCRIPTION
R5						5BY
R4						4BY
R3						3BY
R2						2BY
R1						1BY
RO						0BY
REV.						

FIGURE 6C - 1,4-DIOXANE IN GROUNDWATER C-HORIZON		CLIENT: QUALITY ANALYTICAL SERVICES 1633 MARSH AVENUE KANSAS CITY, MISSOURI	AQUATERRA ENVIRONMENTAL SOLUTIONS, INC. 7311 West 130th Street, Suite 100 Overland Park, Kansas 66213
DRAWN BY: LAM		DESIGNED BY: LAM	PROJECT MANAGER
REVISION NUMBER:	2641.11	DATE:	5/26/09
0	6C	FIGURE SC-MAY09.DWG	

SCALE
0 100 0 100 200
FEET



LEGEND

- + EXTRACTION WELLS
- MONITORING WELLS
- NS NOT SAMPLED
- ND NOT DETECTED
- 13 REPORTED MtBE CONCENTRATION, IN MICROGRAMS PER LITER (UG/L)
- 10 ESTIMATED ISOCONTOUR LINE

GROUNDWATER SAMPLES COLLECTED
ON MAY 11 AND 12, 2009

REV.	DRAWING NUMBER:	FIGURE NUMBER:	CLIENT:	PROJECT NAME:	DATE:	BY:	DESCRIPTION
R5			AQUATERRA ENVIRONMENTAL SOLUTIONS, INC.	1633 MARSH AVENUE KANSAS CITY, MISSOURI			
R4				7311 West 130th Street, Suite 100 Overland Park, Kansas 66213			
R3							
R2							
R1							
RO							
REV.	0	2641.11	QAS	2641.11 FIGURE 2 MAY09.DWG	5/26/09		

FIGURE 7 - MtBE IN GROUNDWATER

AQUATERRA

ENVIRONMENTAL SOLUTIONS, INC.

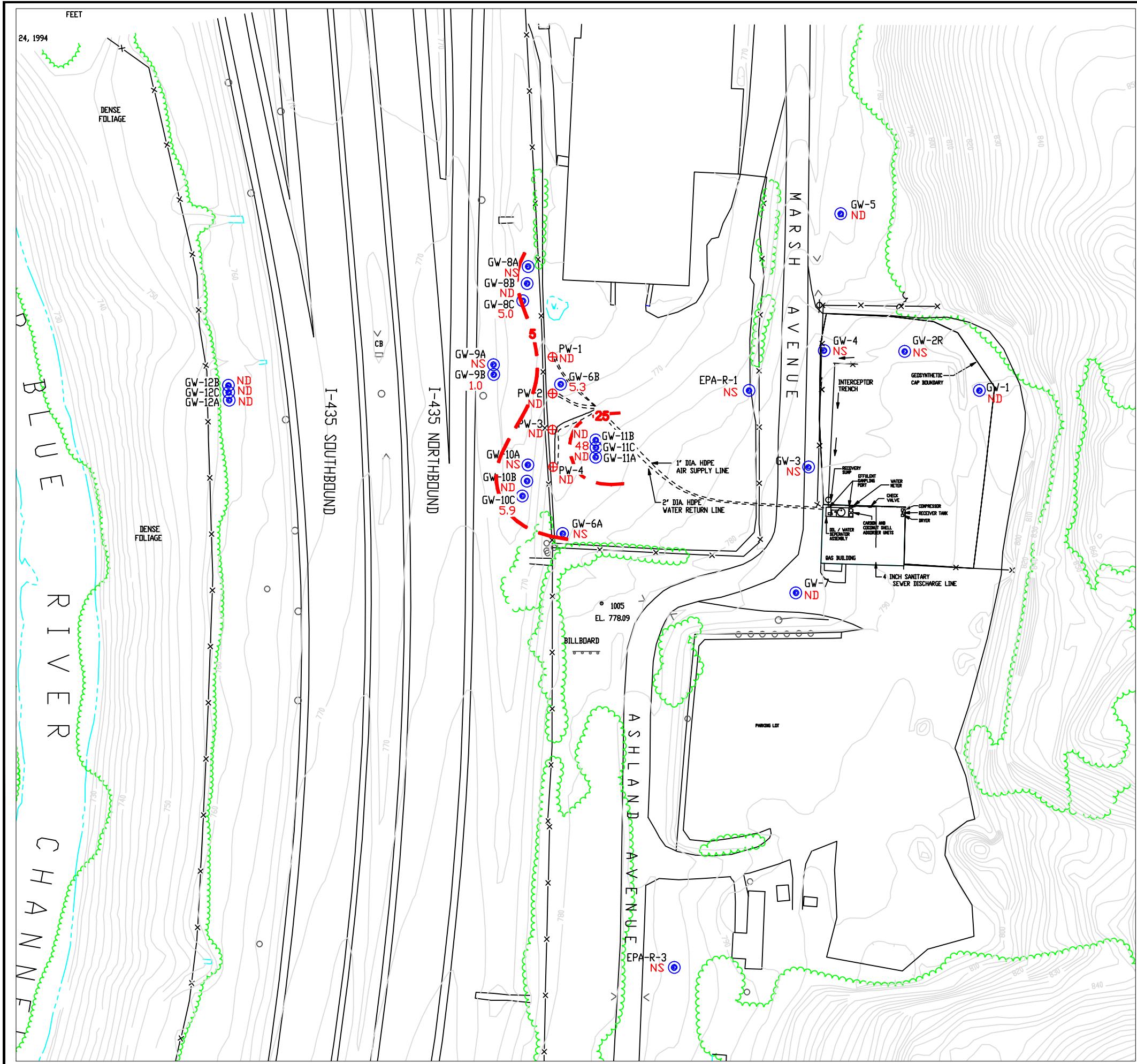
1633 MARSH AVENUE
KANSAS CITY, MISSOURI

DESIGNED BY: LAM

PROJECT MANAGER:

DATE:

5/26/09



LEGEND

- ⊕ EXTRACTION WELLS
- Ⓐ MONITORING WELLS
- NS NOT SAMPLED
- ND NOT DETECTED

7.6 REPORTED VINYL CHLORIDE CONCENTRATION,
IN MICROGRAMS PER LITER (UG/L)

-25- ESTIMATED ISOCONTOUR LINE

GROUNDWATER SAMPLES COLLECTED
ON MAY 11 AND 12, 2009

							DESCRIPTION
R5	-	5BY					
R4	-	4BY					
R3	-	3BY					
R2	-	2BY					
R1	-	1BY					
RO	-	0BY					
REV							

AQUATERRA
ENVIRONMENTAL SOLUTIONS, INC.

7311 West 130th Street, Suite 100
Overland Park, Kansas 66213

CLIENT:	QUALITY ANALYTICAL SERVICES 1633 MARSH AVENUE KANSAS CITY, MISSOURI
DESIGNED BY:	LAM
PROJECT NO.:	MAP-SUM

DRAWN BY:	LAM
PROJECT FILE NAME:	2641.11 FIGURE 8-MAYOR.DWG
DATE:	5/26/09

FIGURE 8 - VINYL CHLORIDE IN GROUNDWATER



Appendix B

Tables

The following tables are included in this Appendix:

- Table 1 Monitoring Network Construction Information and Groundwater Elevations**
- Table 2 Groundwater Gradients and Velocities**
- Table 3 Groundwater Analytical Results – Volatile Organic Compounds**
- Table 4 Groundwater Analytical Results – Metals**
- Table 5 Groundwater Duplicate Results – Volatile Organic Compounds**
- Table 6 Groundwater Duplicate Results – Metals**

Table 1 - Monitoring Network Construction Information and Groundwater Elevations

Quality Analytical Services
 1633 Marsh Avenue
 Blue Summit, Missouri

EPA ID Number MOD0730274609
 Aquaterra Project Number: 2641.11

Well ID	Groundwater Horizon	Casing Diameter (inches)	Well Screen (feet bgs)	Total Depth, Initial (feet bTOC)	Ground Surface Elevation (feet)	Top of Casing Elevation (feet)	Top of Screen Elevation (feet)	Bottom as Installed Elevation (feet)	Date Measured	Depth to Product (feet bTOC)	Depth to Water (feet bTOC)	Groundwater Elevation (feet)	Corrected Groundwater Elevation (feet)	Total Depth, Measured (feet bTOC)	Percent Sediment in Screen
EPA-R-1	A	2	18 - 28	30.55	775.02	777.57	757.02	747.02	05/20/08 11/24/08 05/12/09	16.65 18.86 16.66	Not Measured 21.59 20.15	755.98 757.42	758.16 760.21	Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable
EPA-R-3	A	2	35 - 47	48.12	786.00	787.12	751.00	739.00	05/20/08 11/24/08 05/11/09		16.98 21.92 14.23	770.14 765.20 772.89		49.07 49.13 49.19	-8% -8% -9%
GW-1	A	4	7 - 12	14.64	793.02	795.66	786.02	781.02	05/20/08 11/24/08 05/11/09		10.32 10.48 9.55	785.34 785.18 786.11		13.83 13.98 13.90	23% 19% 15%
GW-2R	A	4	10 - 20	23.83	789.38	793.21	779.38	769.38	05/20/08 11/24/08 05/11/09		15.95 17.65 14.23	777.26 775.56 778.98	779.04	Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable
GW-3	A	4	25 - 35	35.00	784.39	784.39	759.39	749.39	05/20/08 11/24/08 05/11/09	18.60 21.01 19.06	Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable		Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable
GW-4	A	4	18 - 33	37.62	782.06	786.68	764.06	749.06	05/20/08 11/24/08 05/11/09	13.25 14.38 12.82	14.80 16.31 14.56	771.88 770.37 772.12	773.12 771.91 773.51	Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable
GW-5	A	2	5 - 15	17.37	777.91	780.28	772.91	762.91	05/20/08 11/24/08 05/11/09		9.21 10.21 6.99	771.07 770.07 773.29		16.93 16.73 17.00	6% 10% 4%
GW-6A	A	2	14 - 24	23.50	773.32	772.82	759.32	749.32	05/20/08 11/24/08 05/12/09		13.11 16.72 13.20	759.71 756.10 759.62		23.52 23.61 23.60	0% -2% -1%
GW-6B	B	2	72 - 77	76.50	767.57	767.07	695.57	690.57	05/20/08 11/24/08 05/12/09		20.59 14.53 16.69	746.48 752.54 750.38		72.23 72.74 75.80	85% 75% 0%
GW-7	A	2	16 - 26	25.50	783.74	783.24	767.74	757.74	05/20/08 11/24/08 05/11/09		17.97 19.96 15.92	765.27 763.28 767.32		25.47 23.56 25.53	0% 54% 0%
GW-8A	A	2	4 - 14	13.32	764.13	763.45	760.13	750.13	05/20/08 11/24/08 05/12/09		4.36 6.96 5.17	759.09 756.49 758.28		14.18 14.26 Not Measured	-9% -13% Not Applicable

Table 1 - Monitoring Network Construction Information and Groundwater Elevations

Quality Analytical Services
 1633 Marsh Avenue
 Blue Summit, Missouri

EPA ID Number MOD0730274609
 Aquaterra Project Number: 2641.11

Well ID	Groundwater Horizon	Casing Diameter (inches)	Well Screen (feet bgs)	Total Depth, Initial (feet bTOC)	Ground Surface Elevation (feet)	Top of Casing Elevation (feet)	Top of Screen Elevation (feet)	Bottom as Installed Elevation (feet)	Date Measured	Depth to Product (feet bTOC)	Depth to Water (feet bTOC)	Groundwater Elevation (feet)	Corrected Groundwater Elevation (feet)	Total Depth, Measured (feet bTOC)	Percent Sediment in Screen
GW-8B	B	2	68 - 73	72.53	764.47	764.00	696.47	691.47	05/20/08 11/24/08 05/12/09		18.65 13.09 14.96	745.35 750.91 749.04		71.87 74.56 71.94	13% -41% 12%
GW-8C	C	2	40 - 50	48.31	764.53	764.16	724.53	714.53	05/20/08 11/24/08 05/12/09		13.64 14.10 13.04	750.52 750.06 751.12		48.33 48.36 48.39	0% 0% -1%
GW-9A	A	2	14 - 24	23.41	767.54	766.95	753.54	743.54	05/20/08 11/24/08 05/12/09		8.18 11.61 9.23	758.77 755.34 757.72		23.81 23.89 Not Measured	-4% -5% Not Applicable
GW-9B	B	2	71 - 76	75.58	767.89	767.47	696.89	691.89	05/20/08 11/24/08 05/12/09		21.53 16.54 17.70	745.94 750.93 749.77		75.97 77.40 76.81	-8% -36% 0%
GW-10A	A	2	9 - 19	18.60	766.89	766.49	757.89	747.89	05/20/08 11/24/08 05/12/09		7.36 10.96 7.88	759.13 755.53 758.61		18.36 18.71 Not Measured	2% -1% Not Applicable
GW-10B	B	2	71 - 76	75.51	767.03	766.54	696.03	691.03	05/20/08 11/24/08 05/12/09		20.28 15.68 16.62	746.26 750.86 749.92		75.46 75.47 75.48	1% 1% 1%
GW-10C	C	2	40 - 50	49.17	767.60	767.28	727.60	717.60	05/20/08 11/24/08 05/12/09		14.39 16.17 13.26	752.89 751.11 754.02		49.21 49.29 49.30	0% -1% -1%
GW-11A	A	2	15 - 30	32.82	772.14	774.96	757.14	742.14	05/20/08 11/24/08 05/12/09		15.72 19.57 16.62	759.24 755.39 758.34		33.87 34.02 33.97	-7% -8% -8%
GW-11B	B	2	73 - 78	80.31	771.81	774.12	698.81	693.81	05/20/08 11/24/08 05/12/09		27.49 22.73 23.68	746.63 751.39 750.44		79.05 79.16 80.73	25% 23% 0%
GW-11C	C	2	40 - 50	53.14	771.88	775.02	731.88	721.88	05/20/08 11/24/08 05/12/09		19.07 21.17 18.86	755.95 753.85 756.16		53.82 53.93 54.17	-7% -8% -10%
GW-12A	A	2	15 - 30	29.66	759.03	758.69	744.03	729.03	05/20/08 11/24/08 05/12/09		16.96 16.72 15.25	741.73 741.97 743.44		29.13 29.25 29.30	4% 3% 3%

Table 1 - Monitoring Network Construction Information and Groundwater Elevations

Quality Analytical Services

1633 Marsh Avenue

Blue Summit, Missouri

EPA ID Number MOD0730274609

Aquaterra Project Number: 2641.11

Well ID	Groundwater Horizon	Casing Diameter (inches)	Well Screen (feet bgs)	Total Depth, Initial (feet bTOC)	Ground Surface Elevation (feet)	Top of Casing Elevation (feet)	Top of Screen Elevation (feet)	Bottom as Installed Elevation (feet)	Date Measured	Depth to Product (feet bTOC)	Depth to Water (feet bTOC)	Groundwater Elevation (feet)	Corrected Groundwater Elevation (feet)	Total Depth, Measured (feet bTOC)	Percent Sediment in Screen
GW-12B	B	2	63 - 68	67.62	758.97	758.59	695.97	690.97	05/20/08 11/24/08 05/12/09		16.38 15.30 14.32	742.21 743.29 744.27		67.22 67.32 67.42	8% 6% 4%
GW-12C	C	2	40 - 50	49.61	758.93	758.54	718.93	708.93	05/20/08 11/24/08 05/12/09		14.63 12.99 11.48	743.91 745.55 747.06		47.81 47.85 47.85	18% 18% 18%
PW-1	A, B, & C	4	13 - 73	71.59	766.45	765.04	753.45	693.45	05/20/08 11/24/08 05/12/09		5.30 10.49 7.81	759.74 754.55 757.23		Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable
PW-2	A, B, & C	4	15 - 75	73.76	768.47	767.23	753.47	693.47	05/20/08 11/24/08 05/12/19		8.23 12.63 9.66	759.00 754.60 757.57		Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable
PW-3	A, B, & C	4	19 - 79	78.00	770.00	769.00	751.00	691.00	05/20/08 11/24/08 05/12/09		10.32 15.94 12.38	758.68 753.06 756.62		Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable
PW-4	A, B, & C	4	18 - 80	79.00	771.30	770.30	753.30	691.30	05/20/08 11/24/08 05/12/09		12.42 16.62 12.55	757.88 753.68 757.75		Not Measured Not Measured Not Measured	Not Applicable Not Applicable Not Applicable

bgs - below ground surface

bTOC - below top of well casing

The "top of screen elevation" and the "bottom as installed elevation" were determined by subtracting the well screen top and bottom depths from the ground surface elevation.

The initial total depth was determined by subtracting the "bottom as installed elevation" from the "top of casing elevation", except for GW-8C and GW-9C.

The initial total depth of GW-8C and GW-9C were provided on the boring logs.

The groundwater elevations in wells containing measureable free product were corrected due to the presence of free product by adding the product thickness times the specific gravity (0.8) to the original groundwater elevation.

Table 2 - Groundwater Gradients and Velocities

Quality Analytical Services

1633 Marsh Avenue

Blue Summit, Missouri

EPA ID Number MOD0730274609

Aquaterra Project Number: 2641.11

Horizontal Hydraulic Gradients																			
A-Horizon				B-Horizon				C-Horizon											
Well ID	Groundwater Elevation (feet)	Approximate Distance to GW-12A (feet)	Horizontal Gradient (feet/foot)	Well ID	Groundwater Elevation (feet)	Approximate Distance to GW-12B (feet)	Horizontal Gradient (feet/foot)	Well ID	Groundwater Elevation (feet)	Approximate Distance to GW-12C (feet)	Horizontal Gradient (feet/foot)								
GW-1	786.11	660	0.065	GW-8B	749.04	278	0.017	GW-8C	751.12	270	0.015								
GW-8A	758.28	287	0.052	GW-10B	749.92	234	0.024	GW-10C	754.02	276	0.025								
GW-10A	758.61	269	0.056	GW-11B	750.44	327	0.019	GW-11C	756.16	276	0.033								
GW-12A	743.44	--		GW-12B	744.27	--		GW-12C	747.06	--									
Average		0.058		Average		0.020		Average		0.024									
Vertical Hydraulic Gradients																			
A-Horizon to C-Horizon						C-Horizon to B-Horizon													
Well ID	Groundwater Elevation (feet)	Depth to Water (feet)	Top of Casing Elevation (feet)	Top of Screen Elevation (feet)	Vertical Gradient (feet/foot)	Well ID	Groundwater Elevation (feet)	Depth to Water (feet)	Top of Casing Elevation (feet)	Top of Screen Elevation (feet)	Vertical Gradient (feet/foot)								
GW-8A	758.28	5.17	763.45	758.95	-0.214	GW-8C	751.12	13.04	764.16	725.50	-0.071								
GW-8C	751.12	13.04	764.16	725.50		GW-8B	749.04	14.96	764.00	696.00									
GW-10A	758.61	7.88	766.49	757.69		GW-10C	754.02	13.26	767.28	707.11									
GW-10C	754.02	13.26	767.28	707.11	-0.091	GW-10B	749.92	16.62	766.54	696.53	-0.388								
GW-11A	758.34	16.62	774.96	757.14		GW-11C	756.16	18.86	775.02	728.88									
GW-11C	756.16	18.86	775.02	728.88		GW-11B	750.44	23.68	774.12	699.31									
GW-12A	743.44	15.25	758.69	745.53	-0.077	GW-12C	747.06	11.48	758.54	719.47	-0.193								
GW-12C	747.06	11.48	758.54	719.47		GW-12B	744.27	14.32	758.59	696.43									
Average						Average													
Note: A negative vertical gradient indicates a downward gradient from A to C, and from C to B.																			
Horizontal Groundwater Velocity (A-Horizon)																			
Assumed Hydraulic Conductivity (feet/day)	Average Horizontal Gradient (A) (feet/foot)	Porosity (%)	Horizontal Velocity (feet/day)																
0.425	0.058	5	0.489																
Vertical Groundwater Velocity (A to C)																			
Well Cluster	Assumed Hydraulic Conductivity (feet/day)	Average Vertical Gradient (A-C) (feet/foot)	Porosity (%)	Vertical Velocity (feet/day)															
GW-8	0.425	-0.214	5	-1.819															
GW-10	0.425	-0.091	5	-0.771															
GW-11	0.425	-0.077	5	-0.656															
GW-12	0.425	0.139	5	1.181															
Average	0.425	-0.061	5	-0.516															

Table 3 - Groundwater Analytical Results
Volatile Organic Compounds
Quality Analytical Services
1633 Marsh Avenue
Blue Summit, Missouri

EPA ID Number MOD0730274609
Aquaterra Project Number: 2641.11

Parameter	EPA Region 3 RBCs	EPA Region 9 PRGs	Federal MCLs (NPDWS)	Missouri DTLs	Analytical Results, micrograms per liter ($\mu\text{g/l}$)												DUPPLICATE (11C)
					Samples collected on May 11 and 12, 2009												
					GW-1	GW-5	GW-6B	GW-7	GW-8B	GW-8C	GW-9B	GW-10B	GW-10C	GW-11A	GW-11B	GW-11C	
Acetone	5,500	5,500	NL	297	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500
Acrolein	0.042	0.042	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500
Acrylonitrile	0.037	0.039	NL	0.468	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500
Allyl chloride	NL	10	NL	4.4	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500
Benzene	0.34	0.35	5	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<10
Bromobenzene	NL	20	NL	NL	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Bromoform	NL	NL	NL	54.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Bromochloromethane	0.17	0.18	NL	80	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Bromodichloromethane	8.5	8.5	NL	80	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Bromomethane	8.5	8.7	NL	4.67	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50
2-Butanone (MEK)	7,000	7,000	NL	3,640	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500
n-Butylbenzene	NL	240	NL	98.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
sec-Butylbenzene	NL	240	NL	106	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
tert-Butylbenzene	NL	240	NL	103	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Carbon disulfide	1,000	1,000	NL	527	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Carbon tetrachloride	0.16	0.17	5	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Chlorobenzene	90	110	100	55.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Chlorodibromomethane	NL	NL	NL	NL	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Chloroethane	3.6	4.6	NL	48.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50
2-Chloroethyl vinyl ether	NL	NL	NL	NL	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100
Chloroform	0.15	0.17	NL	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50
Chloromethane	190	160	NL	18.3	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<25
2-Chlorotoluene	120	120	NL	61.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
4-Chlorotoluene	430	NL	NL	0.31	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
1,2-Dibromo-3-Chloropropane	0.0002	0.048	0.2	0.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50
1,2-Dibromoethane	0.0053	0.0056	0.05	0.05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Dibromomethane	NL	NL	NL	NL	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
1,2-Dichlorobenzene	270	370	NL	600	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
1,3-Dichlorobenzene	18	180	NL	89.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
1,4-Dichlorobenzene	0.28	0.5	NL	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
trans-1,4-Dichloro-2-butene	NL	NL	NL	NL	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Dichlorodifluoromethane	350	390	NL	220	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50
1,1-Dichloroethane	90	810	NL	24.9	<1.0	<1.0	7.6	<1.0	<1.0	10	1.0	<1.0	1.7	<1.0	<1.0	84	95
1,2-Dichloroethane	0.12	0.12	5	NL	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
1,1-Dichloroethene	350	340	7	7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.2	<10
cis-1,2-Dichloroethene	61	61	70	70	<1.0	<1.0	16	<1.0	<1.0	7.7	2.0	<1.0	4.4	<1.0	<1.0	340	370
trans-1,2-Dichloroethene	110	120	100	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<10
1,2-Dichloropropane	0.26	0.16	5	5	<1.0	<1.0	<1.0</										

Table 3 - Groundwater Analytical Results
Volatile Organic Compounds
Quality Analytical Services
1633 Marsh Avenue
Blue Summit, Missouri

EPA ID Number MOD0730274609
Aquaterra Project Number: 2641.11

Parameter	EPA Region 3 RBCs	EPA Region 9 PRGs	Federal MCLs (NPDWS)	Missouri DTLs	Analytical Results, micrograms per liter ($\mu\text{g/l}$)												
					Samples collected on May 11 and 12, 2009												
	GW-1	GW-5	GW-6B	GW-7	GW-8B	GW-8C	GW-9B	GW-10B	GW-10C	GW-11A	GW-11B	GW-11C					
1,4-Dioxane	6.1	6.1	NL	61	<100	<100	190	<100	<100	<100	<100	160	<100	<100	1,900 J4,J5	2,100 J4	
1,4-Dioxane (low level)	6.1	6.1	NL	61	NA	NA	NA	8.8	80	29	36	170	NA	69	NA	NA	
Ethylbenzene	1,300	1,300	700	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
Ethyl methacrylate	NL	550	NL	NL	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	
Hexachlorobutadiene	0.86	0.86	NL	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
2-Hexanone	NL	NL	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500	
Iodomethane	NL	NL	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500	
Isopropylbenzene	NL	NL	NL	330	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
p-Isopropyltoluene	NL	NL	NL	786	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
Methacrylonitrile	NL	1	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500	
Methylene Chloride	4.1	4.3	NL	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	
Methyl methacrylate	1,400	1,400	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500	
4-Methyl-2-pentanone (MIBK)	6,300	2,000	NL	915	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500	
Methyl tert-butyl ether	2.6	11	NL	128	<1.0	<1.0	5.3	<1.0	<1.0	1.2	<1.0	1.2	8.4	<1.0	2.4	41	34
Naphthalene	NL	6.2	NL	1.09	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	
Pentachloroethane	0.74	NL	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500	
Propionitrile	NL	NL	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<500	
n-Propylbenzene	NL	240	NL	115	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
Styrene	1,600	1,600	100	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
1,1,2,2-Tetrachloroethane	0.053	0.055	NL	0.689	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
1,1,1,2-Tetrachloroethane	0.41	0.43	NL	5.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
Tetrachloroethene	0.1	0.1	5	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
Tetrahydrofuran	8.8	1.6	NL	20.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.6	<5.0	32 J3	<50
Toluene	2,300	720	1,000	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	
1,2,3-Trichlorobenzene	NL	NL	NL	NL	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
1,2,4-Trichlorobenzene	61	180	70	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
1,1,1-Trichloroethane	9,100	3,200	200	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
1,1,2-Trichloroethane	0.19	0.2	5	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
Trichloroethene	0.026	0.028	5	5	<1.0	<1.0	5.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
Trichlorofluoromethane	1,300	1,300	NL	698	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	
1,2,3-Trichloropropane	0.0053	0.0056	NL	0.0693	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
1,2,4-Trimethylbenzene	15	12	NL	7.06	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
1,3,5-Trimethylbenzene	NL	12	NL	7.05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	
Vinyl chloride	0.015	0.02	2	2	<1.0	<1.0	5.3	<1.0	<1.0	5.0	1.0	<1.0	5.9	<1.0	<1.0	48	48
Xylenes, Total	210	210	10,000	10,000	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<30	

Sources for Action Levels:

EPA Region 3 RBCs (risk-based concentrations), October 2007,
 tap water scenario

EPA Region 9 PRGs (preliminary remediation goals), 2004, tap water scenario

Federal MCLs (maximum contaminant levels), NPDWS (national primary
 drinking water standards), June 2003

Missouri DTLs (lowest default target levels), June 2006

Notes: NL = not listed NA = not analyzed All samples analyzed by EPA Method 8260

Lab

J3 The associated batch QC was outside the established quality control range for precision.

J4 The associated batch QC was outside the established quality control range for accuracy.

J5 – The sample matrix interfered with the ability to make any accurate determination; the spike value is high.

Table 3 - Groundwater Analytical Results
Volatile Organic Compounds
Quality Analytical Services
1633 Marsh Avenue
Blue Summit, Missouri

EPA ID Number MOD0730274609
Aquaterra Project Number: 2641.11

Table 3 - Groundwater Analytical Results
Volatile Organic Compounds
Quality Analytical Services
1633 Marsh Avenue
Blue Summit, Missouri

EPA ID Number MOD0730274609
Aquaterra Project Number: 2641.11

Parameter	EPA Region 3 RBCs	EPA Region 9 PRGs	Federal MCLs (NPDWS)	Missouri DTLs	Analytical Results, micrograms per liter ($\mu\text{g/l}$)											
					Samples collected on May 11 and 12, 2009											
	GW-12A	GW-12B	GW-12C	PW-1	PW-2	PW-3	PW-4	TRENCH	EFFLUENT	EQUIP RINSATE	TRIP BLANK 1	TRIP BLANK 2				
1,4-Dioxane	6.1	6.1	NL	61	<100	<100	<100	<100	<100	<100	<100 J4	<100 J4	<100 J4	<100 J4	<100 J4	<100 J4
1,4-Dioxane (low level)	6.1	6.1	NL	61	<4.0	<4.0	93	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,300	1,300	700	700	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl methacrylate	NL	550	NL	NL	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobutadiene	0.86	0.86	NL	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Hexanone	NL	NL	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Iodomethane	NL	NL	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Isopropylbenzene	NL	NL	NL	330	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	NL	NL	NL	786	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methacrylonitrile	NL	1	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methylene Chloride	4.1	4.3	NL	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl methacrylate	1,400	1,400	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
4-Methyl-2-pentanone (MIBK)	6,300	2,000	NL	915	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methyl tert-butyl ether	2.6	11	NL	128	<1.0	<1.0	<1.0	<1.0	5.6	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0
Naphthalene	NL	6.2	NL	1.09	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Pentachloroethane	0.74	NL	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Propionitrile	NL	NL	NL	NL	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
n-Propylbenzene	NL	240	NL	115	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	1,600	1,600	100	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	0.053	0.055	NL	0.689	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	0.41	0.43	NL	5.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	0.1	0.1	5	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrahydrofuran	8.8	1.6	NL	20.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	2,300	720	1,000	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,3-Trichlorobenzene	NL	NL	NL	NL	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	61	180	70	70	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	9,100	3,200	200	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	0.19	0.2	5	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	0.026	0.028	5	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	1,300	1,300	NL	698	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,3-Trichloropropane	0.0053	0.0056	NL	0.0693	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	15	12	NL	7.06	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	NL	12	NL	7.05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.015	0.02	2	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	210	210	10,000	10,000	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Sources for Action Levels:

EPA Region 3 RBCs (risk-based concentrations), October 2007,
tap water scenario

EPA Region 9 PRGs (preliminary remediation goals), 2004, tap water scenario
Federal MCLs (maximum contaminant levels), NPDWS (national primary

drinking water standards), June 2003

Missouri DTLs (lowest default target levels), June 2006

Notes: NL = not listed NA = not analyzed All samples analyzed by EPA Method 8260

Lab

J3 The associated batch QC was outside the established quality control range for precision.

J4 The associated batch QC was outside the established quality control range for accuracy.

J5 – The sample matrix interfered with the ability to make any accurate determination; the spike value is high.

Table 4 - Groundwater Analytical Results

Total Metals
 Quality Analytical Services
 1633 Marsh Avenue
 Blue Summit, Missouri

EPA ID Number MOD0730274609
 Aquaterra Project Number: 2641.11

Parameter	EPA Region 3 RBCs	EPA Region 9 PRGs	Federal MCLs (NPDWS)	Missouri DTLs	Analytical Results, micrograms per liter ($\mu\text{g/l}$) Samples collected on May 11 and 12, 2009													DUPLICATE (11C)
					GW-1	GW-5	GW-6B	GW-7	GW-8B	GW-8C	GW-9B	GW-10B	GW-10C	GW-11A	GW-11B	GW-11C		
Arsenic	0.045	0.045	50	10	19	5.3	8.8	7.5	2.7	3.3	21	23	19	2.3	16	60	J5	41
Mercury	NL	NL	2	50.7	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Barium	7,300	2,600	2,000	2,000	220	260	420	290	140	720	450	420	840	360	270	580	580	
Cadmium	18	1.8	5	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7.8	<5.0	<5.0	<5.0	<5.0	
Chromium	55,000	55,000	100	100	<10	12	<10	<10	<10	<10	<10	<10	25	<10	<10	<10	<10	
Lead	NL	NL	15	15	<5.0	<5.0	<5.0	7.2	<5.0	<5.0	<5.0	<5.0	14	<5.0	34	<5.0	<5.0	
Manganese	730	880	50	2,190	450	110	810	1600	240	980	440	420	4700	37	480	850	840	
Nickel	730	730	100	31.3	<20	<20	<20	<20	<20	<20	<20	<20	31	<20	<20	76	75	
Selenium	180	730	100	50	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	36	
Silver	180	180	50	78.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 P1,J6	<10	

Sources for Action Levels:

EPA Region 3 RBCs (risk-based concentrations), October 2007,
 tap water scenario

EPA Region 9 PRGs (preliminary remediation goals), 2004, tap water scenario

Federal MCLs (maximum contaminant levels), NPDWS (national primary
 drinking water standards), June 2003

Missouri DTLs (lowest default target levels), June 2006

Notes: NL = not listed All samples analyzed by EPA Method 6010 and 7470

Laboratory Qualifiers:

J5 The sample matrix interfered with the ability to make any accurate determination; spike value is high.

J6 The sample matrix interfered with the ability to make any accurate determination; spike value is low.

P1 RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Table 4 - Groundwater Analytical Results

Total Metals
 Quality Analytical Services
 1633 Marsh Avenue
 Blue Summit, Missouri

EPA ID Number MOD0730274609
 Aquaterra Project Number: 2641.11

Parameter	EPA Region 3 RBCs	EPA Region 9 PRGs	Federal MCLs (NPDWS)	Missouri DTLs	Analytical Results, micrograms per liter ($\mu\text{g/l}$) Samples collected on May 11 and 12, 2009									
					GW-12A	GW-12B	GW-12C	PW-1	PW-2	PW-3	PW-4	TRENCH	EFFLUENT	EQUIP RINSATE
Arsenic	0.045	0.045	50	10	1.3	3.5	21	1.7	3.0	<1.0	1.7	1.0	4.8	2.0
Mercury	NL	NL	2	50.7	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Barium	7,300	2,600	2,000	2,000	130	100	1600	110	150	130	98	120	170	<5.0
Cadmium	18	1.8	5	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chromium	55,000	55,000	100	100	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Lead	NL	NL	15	15	<5.0	<5.0	<5.0	5.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Manganese	730	880	50	2,190	5500	53	1800	39	64	12	67	15	220	<10
Nickel	730	730	100	31.3	<20	<20	<20	<20	55	<20	<20	<20	<20	<20
Selenium	180	730	100	50	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Silver	180	180	50	78.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Sources for Action Levels:

EPA Region 3 RBCs (risk-based concentrations), October 2007,
 tap water scenario

EPA Region 9 PRGs (preliminary remediation goals), 2004, tap water scenario

Federal MCLs (maximum contaminant levels), NPDWS (national primary
 drinking water standards), June 2003

Missouri DTLs (lowest default target levels), June 2006

Notes: NL = not listed All samples analyzed by EPA Method 6010 and 7470

Laboratory Qualifiers:

J5 The sample matrix interfered with the ability to make any accurate determination; spike value is high.

J6 The sample matrix interfered with the ability to make any accurate determination; spike value is low.

P1 RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Table 5 - Groundwater Duplicate Results
Volatile Organic Compounds
Quality Analytical Services
1633 Marsh Avenue
Blue Summit, Missouri

EPA ID Number MOD0730274609
Aquaterra Project Number: 2641.11

Parameter	Analytical Results (micrograms per liter)		Relative Percent Difference	Parameter	Analytical Results (micrograms per liter)		Relative Percent Difference
	GW-11C	DUPLICATE (11C)			GW-11C	DUPLICATE (11C)	
Acetone	<50	<500	0.0	2,2-Dichloropropane	<1.0	<10	0.0
Acrolein	<50	<500	0.0	1,1-Dichloropropene	<1.0	<10	0.0
Acrylonitrile	<50	<500	0.0	cis-1,3-Dichloropropene	<1.0	<10	0.0
Allyl chloride	<50	<500	0.0	trans-1,3-Dichloropropene	<1.0	<10	0.0
Benzene	2.0	<10	NA	Di-isopropyl ether	<1.0	<10	0.0
Bromobenzene	<1.0	<10	0.0	1,4-Dioxane	1,900	2,100	10.0
Bromochloromethane	<1.0	<10	0.0	Ethylbenzene	<1.0	<10	0.0
Bromodichloromethane	<1.0	<10	0.0	Ethyl methacrylate	<5.0	<50	0.0
Bromoform	<1.0	<10	0.0	Hexachlorobutadiene	<1.0	<10	0.0
Bromomethane	<5.0	<50	0.0	2-Hexanone	<50	<500	0.0
2-Butanone (MEK)	<50	<500	0.0	Iodomethane	<50	<500	0.0
n-Butylbenzene	<1.0	<10	0.0	Isopropylbenzene	<1.0	<10	0.0
sec-Butylbenzene	<1.0	<10	0.0	p-Isopropyltoluene	<1.0	<10	0.0
tert-Butylbenzene	<1.0	<10	0.0	Methacrylonitrile	<50	<500	0.0
Carbon disulfide	<1.0	<10	0.0	Methylene Chloride	<5.0	<50	0.0
Carbon tetrachloride	<1.0	<10	0.0	Methyl methacrylate	<50	<500	0.0
Chlorobenzene	<1.0	<10	0.0	4-Methyl-2-pentanone (MIBK)	<50	<500	0.0
Chlorodibromomethane	<1.0	<10	0.0	Methyl tert-butyl ether	41	34	18.7
Chloroethane	<5.0	<50	0.0	Naphthalene	<5.0	<50	0.0
2-Chloroethyl vinyl ether	<10 J3	<100	0.0	Pentachloroethane	<50	<500	0.0
Chloroform	<5.0	<50	0.0	Propionitrile	<50	<500	0.0
Chloromethane	<2.5	<25	0.0	n-Propylbenzene	<1.0	<10	0.0
2-Chlorotoluene	<1.0	<10	0.0	Styrene	<1.0	<10	0.0
4-Chlorotoluene	<1.0	<10	0.0	1,1,2,2-Tetrachloroethane	<1.0	<10	0.0
1,2-Dibromo-3-Chloropropane	<5.0	<50	0.0	1,1,1,2-Tetrachloroethane	<1.0	<10	0.0
1,2-Dibromoethane	<1.0	<10	0.0	Tetrachloroethene	<1.0	<10	0.0
Dibromomethane	<1.0	<10	0.0	Tetrahydrofuran	32 J3	<50	NA
1,2-Dichlorobenzene	<1.0	<10	0.0	Toluene	<5.0	<50	0.0
1,3-Dichlorobenzene	<1.0	<10	0.0	1,2,3-Trichlorobenzene	<1.0	<10	0.0
1,4-Dichlorobenzene	<1.0	<10	0.0	1,2,4-Trichlorobenzene	<1.0	<10	0.0
trans-1,4-Dichloro-2-butene	<1.0	<10	0.0	1,1,1-Trichloroethane	<1.0	<10	0.0
Dichlorodifluoromethane	<5.0	<50	0.0	1,1,2-Trichloroethane	<1.0	<10	0.0
1,1-Dichloroethane	84	95	12.3	Trichloroethene	<1.0	<10	0.0
1,2-Dichloroethane	<1.0	<10	0.0	Trichlorofluoromethane	<5.0	<50	0.0
1,1-Dichloroethene	8.2	<10	NA	1,2,3-Trichloropropane	<1.0	<10	0.0
cis-1,2-Dichloroethene	340	370	8.5	1,2,4-Trimethylbenzene	<1.0	<10	0.0
trans-1,2-Dichloroethene	1.0	<10	NA	1,3,5-Trimethylbenzene	<1.0	<10	0.0
1,2-Dichloropropane	<1.0	<10	0.0	Vinyl chloride	48	48	0.0
1,3-Dichloropropane	<1.0	<10	0.0	Xylenes, Total	<3.0	<30	0.0

All concentrations reported in micrograms per liter (ug/L)

RPD - relative percent difference

RPD calculated by $(\text{result1}-\text{result2}) * 100 / (0.5 * (\text{result1} + \text{result2}))$

RPD results are considered ok if RPD is < 20% (highlighted on table)

Table 6 - Groundwater Duplicate Results
Total Metals
Quality Analytical Services
1633 Marsh Avenue
Blue Summit, Missouri

EPA ID Number MOD0730274609
Aquaterra Project Number: 2641.11

Parameter	Analytical Results (micrograms per liter)		Relative Percent Difference
	GW-11C	DUPLICATE (11C)	
Arsenic	60 J5	41	37.6
Mercury	<0.20	<0.20	0.0
Barium	580	580	0.0
Cadmium	<5.0	<5.0	0.0
Chromium	<10	<10	0.0
Lead	<5.0	<5.0	0.0
Manganese	850	840	1.2
Nickel	76	75	1.3
Selenium	<20	36	NA
Silver	<10 P1,J6	<10	0.0

All concentrations reported in micrograms per liter (ug/L)

RPD - relative percent difference

RPD calculated by $(\text{result1}-\text{result2}) * 100 / (0.5 * (\text{result1} + \text{result2}))$

RPD results are considered ok if RPD is < 20% (highlighted on table)

Appendix C

Field Notes and Data Sheets

Appendix D

Laboratory Analytical Reports



ENVIRONMENTAL SCIENCE CORP.

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Est. 1970

Susan L. McCart
Aquaterra Environmental Solutions, Inc.
7311 West 130th Street, Ste. 100

Overland Park, KS 66213

Report Summary

Friday May 22, 2009

Report Number: L402485

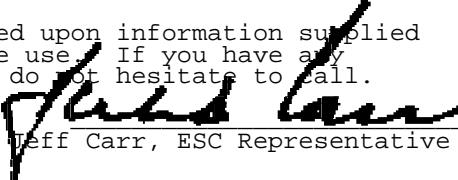
Samples Received: 05/14/09

Client Project: 2641.10-300

Description: QAS Marsh Avenue

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:


Jeff Carr, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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Where applicable, sampling conducted by ESC is performed per guidance provided
in laboratory standard operating procedures: 060302, 060303, and 060304.



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-1
Collected By : Bryan Ross
Collection Date : 05/11/09 14:25

ESC Sample # : L402485-01
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	19.	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	220	5.0	ug/l	6010B	05/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/19/09	1
Chromium	BDL	10.	ug/l	6010B	05/19/09	1
Lead	BDL	5.0	ug/l	6010B	05/19/09	1
Manganese	450	10.	ug/l	6010B	05/19/09	1
Nickel	BDL	20.	ug/l	6010B	05/19/09	1
Selenium	BDL	20.	ug/l	6010B	05/19/09	1
Silver	BDL	10.	ug/l	6010B	05/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-1
Collected By : Bryan Ross
Collection Date : 05/11/09 14:25

ESC Sample # : L402485-01
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

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Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-1
Collected By : Bryan Ross
Collection Date : 05/11/09 14:25

ESC Sample # : L402485-01
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	99.4		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	97.0		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	98.5		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 05/22/09 12:38 Printed: 05/22/09 12:39



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Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-5
Collected By : Bryan Ross
Collection Date : 05/11/09 16:20

ESC Sample # : L402485-02
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	5.3	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	260	5.0	ug/l	6010B	05/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/19/09	1
Chromium	12.	10.	ug/l	6010B	05/19/09	1
Lead	BDL	5.0	ug/l	6010B	05/19/09	1
Manganese	110	10.	ug/l	6010B	05/19/09	1
Nickel	BDL	20.	ug/l	6010B	05/19/09	1
Selenium	BDL	20.	ug/l	6010B	05/19/09	1
Silver	BDL	10.	ug/l	6010B	05/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-5
Collected By : Bryan Ross
Collection Date : 05/11/09 16:20

ESC Sample # : L402485-02
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



ENVIRONMENTAL SCIENCE CORP.

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-5
Collected By : Bryan Ross
Collection Date : 05/11/09 16:20

ESC Sample # : L402485-02
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	98.9		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	113.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	101.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-6B
Collected By : Bryan Ross
Collection Date : 05/12/09 12:25

ESC Sample # : L402485-03
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	8.8	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	420	5.0	ug/l	6010B	05/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/19/09	1
Chromium	BDL	10.	ug/l	6010B	05/19/09	1
Lead	BDL	5.0	ug/l	6010B	05/19/09	1
Manganese	810	10.	ug/l	6010B	05/19/09	1
Nickel	BDL	20.	ug/l	6010B	05/19/09	1
Selenium	BDL	20.	ug/l	6010B	05/19/09	1
Silver	BDL	10.	ug/l	6010B	05/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-6B
Collected By : Bryan Ross
Collection Date : 05/12/09 12:25

ESC Sample # : L402485-03
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	7.6	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	16.	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	190	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	5.3	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	5.4	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-6B
Collected By : Bryan Ross
Collection Date : 05/12/09 12:25

ESC Sample # : L402485-03

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	5.3	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	99.8		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	115.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	101.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-7
Collected By : Bryan Ross
Collection Date : 05/11/09 15:35

ESC Sample # : L402485-04
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	7.5	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	290	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	7.2	5.0	ug/l	6010B	05/20/09	1
Manganese	1600	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-7
Collected By : Bryan Ross
Collection Date : 05/11/09 15:35

ESC Sample # : L402485-04
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



ENVIRONMENTAL SCIENCE CORP.

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-7
Collected By : Bryan Ross
Collection Date : 05/11/09 15:35

ESC Sample # : L402485-04

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	97.6		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	113.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	102.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-8B
Collected By : Bryan Ross
Collection Date : 05/12/09 18:00

ESC Sample # : L402485-05
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	2.7	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	140	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	240	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-8B
Collected By : Bryan Ross
Collection Date : 05/12/09 18:00

ESC Sample # : L402485-05
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-8B
Collected By : Bryan Ross
Collection Date : 05/12/09 18:00

ESC Sample # : L402485-05

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	103.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	100.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-8C
Collected By : Bryan Ross
Collection Date : 05/12/09 18:20

ESC Sample # : L402485-06
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	3.3	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	720	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	980	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-8C
Collected By : Bryan Ross
Collection Date : 05/12/09 18:20

ESC Sample # : L402485-06
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	10.	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	7.7	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	1.2	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-8C
Collected By : Bryan Ross
Collection Date : 05/12/09 18:20

ESC Sample # : L402485-06
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	5.0	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	117.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	98.8		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 05/22/09 12:38 Printed: 05/22/09 12:39



**ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-9B
Collected By : Bryan Ross
Collection Date : 05/12/09 17:15

ESC Sample # : L402485-07
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	21.	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	450	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	440	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-9B
Collected By : Bryan Ross
Collection Date : 05/12/09 17:15

ESC Sample # : L402485-07
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	1.0	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	2.0	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-9B
Collected By : Bryan Ross
Collection Date : 05/12/09 17:15

ESC Sample # : L402485-07

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	1.0	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	97.8		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	114.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	99.1		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-10B
Collected By : Bryan Ross
Collection Date : 05/12/09 16:45

ESC Sample # : L402485-08
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	23.	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	420	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	420	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-10B
Collected By : Bryan Ross
Collection Date : 05/12/09 16:45

ESC Sample # : L402485-08
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	1.2	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-10B
Collected By : Bryan Ross
Collection Date : 05/12/09 16:45

ESC Sample # : L402485-08

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	117.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	97.4		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

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Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-10C
Collected By : Bryan Ross
Collection Date : 05/12/09 16:10

ESC Sample # : L402485-09
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	19.	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	840	5.0	ug/l	6010B	05/20/09	1
Cadmium	7.8	5.0	ug/l	6010B	05/20/09	1
Chromium	25.	10.	ug/l	6010B	05/20/09	1
Lead	14.	5.0	ug/l	6010B	05/20/09	1
Manganese	4700	10.	ug/l	6010B	05/20/09	1
Nickel	31.	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-10C
Collected By : Bryan Ross
Collection Date : 05/12/09 16:10

ESC Sample # : L402485-09
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	1.7	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	4.4	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	160	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	8.4	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	5.6	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-10C
Collected By : Bryan Ross
Collection Date : 05/12/09 16:10

ESC Sample # : L402485-09
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	5.9	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	99.9		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	118.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	99.5		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11A
Collected By : Bryan Ross
Collection Date : 05/12/09 09:30

ESC Sample # : L402485-10
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	2.3	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	360	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	37.	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11A
Collected By : Bryan Ross
Collection Date : 05/12/09 09:30

ESC Sample # : L402485-10
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11A
Collected By : Bryan Ross
Collection Date : 05/12/09 09:30

ESC Sample # : L402485-10

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	98.7		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	115.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	99.5		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11B
Collected By : Bryan Ross
Collection Date : 05/12/09 10:20

ESC Sample # : L402485-11
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	16.	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	270	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	34.	5.0	ug/l	6010B	05/20/09	1
Manganese	480	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11B
Collected By : Bryan Ross
Collection Date : 05/12/09 10:20

ESC Sample # : L402485-11
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	2.4	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11B
Collected By : Bryan Ross
Collection Date : 05/12/09 10:20

ESC Sample # : L402485-11

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	98.1		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	117.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	99.4		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11C
Collected By : Bryan Ross
Collection Date : 05/12/09 10:30

ESC Sample # : L402485-12

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	60.	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	580	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	850	10.	ug/l	6010B	05/20/09	1
Nickel	76.	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	2.0	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11C
Collected By : Bryan Ross
Collection Date : 05/12/09 10:30

ESC Sample # : L402485-12
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	84.	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	8.2	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	340	5.0	ug/l	8260B	05/15/09	5
trans-1,2-Dichloroethene	1.0	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	1900	500	ug/l	8260B	05/15/09	5
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	41.	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	32.	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-11C
Collected By : Bryan Ross
Collection Date : 05/12/09 10:30

ESC Sample # : L402485-12

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	48.	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	105.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	100.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12A
Collected By : Bryan Ross
Collection Date : 05/12/09 14:50

ESC Sample # : L402485-13

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	1.3	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	130	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	5500	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12A
Collected By : Bryan Ross
Collection Date : 05/12/09 14:50

ESC Sample # : L402485-13

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



ENVIRONMENTAL SCIENCE CORP.

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12A
Collected By : Bryan Ross
Collection Date : 05/12/09 14:50

ESC Sample # : L402485-13

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	97.7		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	115.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	99.3		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12B
Collected By : Bryan Ross
Collection Date : 05/12/09 15:10

ESC Sample # : L402485-14

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	3.5	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	100	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	53.	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12B
Collected By : Bryan Ross
Collection Date : 05/12/09 15:10

ESC Sample # : L402485-14
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



ENVIRONMENTAL SCIENCE CORP.

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12B
Collected By : Bryan Ross
Collection Date : 05/12/09 15:10

ESC Sample # : L402485-14

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	102.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	99.2		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12C
Collected By : Bryan Ross
Collection Date : 05/12/09 15:30

ESC Sample # : L402485-15

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	21.	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	1600	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	1800	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12C
Collected By : Bryan Ross
Collection Date : 05/12/09 15:30

ESC Sample # : L402485-15
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	1.1	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : GW-12C
Collected By : Bryan Ross
Collection Date : 05/12/09 15:30

ESC Sample # : L402485-15

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	97.3		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	115.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	98.2		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 05/22/09 12:38 Printed: 05/22/09 12:40



**ENVIRONMENTAL
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12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-1
Collected By : Bryan Ross
Collection Date : 05/12/09 11:25

ESC Sample # : L402485-16
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	1.7	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	110	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	5.2	5.0	ug/l	6010B	05/20/09	1
Manganese	39.	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-1
Collected By : Bryan Ross
Collection Date : 05/12/09 11:25

ESC Sample # : L402485-16
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-1
Collected By : Bryan Ross
Collection Date : 05/12/09 11:25

ESC Sample # : L402485-16

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	98.1		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	118.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	101.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-2
Collected By : Bryan Ross
Collection Date : 05/12/09 11:30

ESC Sample # : L402485-17
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	3.0	1.0	ug/l	6020	05/21/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	150	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	64.	10.	ug/l	6010B	05/20/09	1
Nickel	55.	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-2
Collected By : Bryan Ross
Collection Date : 05/12/09 11:30

ESC Sample # : L402485-17
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	5.6	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-2
Collected By : Bryan Ross
Collection Date : 05/12/09 11:30

ESC Sample # : L402485-17

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	98.7		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	107.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	101.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-3
Collected By : Bryan Ross
Collection Date : 05/12/09 11:35

ESC Sample # : L402485-18

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	BDL	1.0	ug/l	6020	05/20/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	130	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	12.	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



ENVIRONMENTAL SCIENCE CORP.

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1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-3
Collected By : Bryan Ross
Collection Date : 05/12/09 11:35

ESC Sample # : L402485-18
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-3
Collected By : Bryan Ross
Collection Date : 05/12/09 11:35

ESC Sample # : L402485-18

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	97.8		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	116.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	99.9		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-4
Collected By : Bryan Ross
Collection Date : 05/12/09 11:40

ESC Sample # : L402485-19
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	1.7	1.0	ug/l	6020	05/20/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	98.	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	67.	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-4
Collected By : Bryan Ross
Collection Date : 05/12/09 11:40

ESC Sample # : L402485-19
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : PW-4
Collected By : Bryan Ross
Collection Date : 05/12/09 11:40

ESC Sample # : L402485-19

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	99.3		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	115.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	100.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : TRENCH
Collected By : Bryan Ross
Collection Date : 05/12/09 13:30

ESC Sample # : L402485-20

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	1.0	1.0	ug/l	6020	05/20/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	120	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	15.	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : TRENCH
Collected By : Bryan Ross
Collection Date : 05/12/09 13:30

ESC Sample # : L402485-20
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	1.1	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : TRENCH
Collected By : Bryan Ross
Collection Date : 05/12/09 13:30

ESC Sample # : L402485-20

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	98.6		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	102.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	113.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : EFFLUENT
Collected By : Bryan Ross
Collection Date : 05/12/09 13:40

ESC Sample # : L402485-21
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	4.8	1.0	ug/l	6020	05/20/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	170	5.0	ug/l	6010B	05/20/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/20/09	1
Chromium	BDL	10.	ug/l	6010B	05/20/09	1
Lead	BDL	5.0	ug/l	6010B	05/20/09	1
Manganese	220	10.	ug/l	6010B	05/20/09	1
Nickel	BDL	20.	ug/l	6010B	05/20/09	1
Selenium	BDL	20.	ug/l	6010B	05/20/09	1
Silver	BDL	10.	ug/l	6010B	05/20/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/14/09	1
Acrolein	BDL	50.	ug/l	8260B	05/14/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/14/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/14/09	1
Benzene	BDL	1.0	ug/l	8260B	05/14/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/14/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/14/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/14/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/14/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/14/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/14/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/14/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/14/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/14/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/14/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/14/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/14/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/14/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : EFFLUENT
Collected By : Bryan Ross
Collection Date : 05/12/09 13:40

ESC Sample # : L402485-21
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/14/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/14/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
cis-1,2-Dichloroethene	1.0	1.0	ug/l	8260B	05/14/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/14/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/14/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/14/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/14/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/14/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/14/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/14/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/14/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/14/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/14/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/14/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/14/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/14/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/14/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/14/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Styrene	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/14/09	1
Toluene	BDL	5.0	ug/l	8260B	05/14/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/14/09	1
1,2,3-Trichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : EFFLUENT
Collected By : Bryan Ross
Collection Date : 05/12/09 13:40

ESC Sample # : L402485-21

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/14/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/14/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/14/09	1
Dibromofluoromethane	116.		% Rec.	8260B	05/14/09	1
4-Bromofluorobenzene	88.6		% Rec.	8260B	05/14/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : DUP-1
Collected By : Bryan Ross
Collection Date : 05/12/09 10:30

ESC Sample # : L402485-22
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	41.	1.0	ug/l	6020	05/20/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	580	5.0	ug/l	6010B	05/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/19/09	1
Chromium	BDL	10.	ug/l	6010B	05/19/09	1
Lead	BDL	5.0	ug/l	6010B	05/19/09	1
Manganese	840	10.	ug/l	6010B	05/19/09	1
Nickel	75.	20.	ug/l	6010B	05/19/09	1
Selenium	36.	20.	ug/l	6010B	05/19/09	1
Silver	BDL	10.	ug/l	6010B	05/19/09	1
Volatile Organics						
Acetone	BDL	500	ug/l	8260B	05/15/09	10
Acrolein	BDL	500	ug/l	8260B	05/15/09	10
Acrylonitrile	BDL	500	ug/l	8260B	05/15/09	10
Allyl chloride	BDL	500	ug/l	8260B	05/15/09	10
Benzene	BDL	10.	ug/l	8260B	05/15/09	10
Bromobenzene	BDL	10.	ug/l	8260B	05/15/09	10
Bromoform	BDL	10.	ug/l	8260B	05/15/09	10
Bromomethane	BDL	50.	ug/l	8260B	05/15/09	10
2-Butanone (MEK)	BDL	500	ug/l	8260B	05/15/09	10
n-Butylbenzene	BDL	10.	ug/l	8260B	05/15/09	10
sec-Butylbenzene	BDL	10.	ug/l	8260B	05/15/09	10
tert-Butylbenzene	BDL	10.	ug/l	8260B	05/15/09	10
Carbon disulfide	BDL	10.	ug/l	8260B	05/15/09	10
Carbon tetrachloride	BDL	10.	ug/l	8260B	05/15/09	10
Chlorobenzene	BDL	10.	ug/l	8260B	05/15/09	10
Chlorodibromomethane	BDL	10.	ug/l	8260B	05/15/09	10
Chloroethane	BDL	50.	ug/l	8260B	05/15/09	10
2-Chloroethyl vinyl ether	BDL	100	ug/l	8260B	05/15/09	10
Chloroform	BDL	50.	ug/l	8260B	05/15/09	10
Chloromethane	BDL	25.	ug/l	8260B	05/15/09	10
2-Chlorotoluene	BDL	10.	ug/l	8260B	05/15/09	10
4-Chlorotoluene	BDL	10.	ug/l	8260B	05/15/09	10
1,2-Dibromo-3-Chloropropane	BDL	50.	ug/l	8260B	05/15/09	10
1,2-Dibromoethane	BDL	10.	ug/l	8260B	05/15/09	10
Dibromomethane	BDL	10.	ug/l	8260B	05/15/09	10
1,2-Dichlorobenzene	BDL	10.	ug/l	8260B	05/15/09	10
1,3-Dichlorobenzene	BDL	10.	ug/l	8260B	05/15/09	10
1,4-Dichlorobenzene	BDL	10.	ug/l	8260B	05/15/09	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

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Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : DUP-1
Collected By : Bryan Ross
Collection Date : 05/12/09 10:30

ESC Sample # : L402485-22
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	10.	ug/l	8260B	05/15/09	10
Dichlorodifluoromethane	BDL	50.	ug/l	8260B	05/15/09	10
1,1-Dichloroethane	95.	10.	ug/l	8260B	05/15/09	10
1,2-Dichloroethane	BDL	10.	ug/l	8260B	05/15/09	10
1,1-Dichloroethene	BDL	10.	ug/l	8260B	05/15/09	10
cis-1,2-Dichloroethene	370	10.	ug/l	8260B	05/15/09	10
trans-1,2-Dichloroethene	BDL	10.	ug/l	8260B	05/15/09	10
1,2-Dichloropropane	BDL	10.	ug/l	8260B	05/15/09	10
1,3-Dichloropropane	BDL	10.	ug/l	8260B	05/15/09	10
2,2-Dichloropropane	BDL	10.	ug/l	8260B	05/15/09	10
1,1-Dichloropropene	BDL	10.	ug/l	8260B	05/15/09	10
cis-1,3-Dichloropropene	BDL	10.	ug/l	8260B	05/15/09	10
trans-1,3-Dichloropropene	BDL	10.	ug/l	8260B	05/15/09	10
Di-isopropyl ether	BDL	10.	ug/l	8260B	05/15/09	10
1,4-Dioxane	2100	1000	ug/l	8260B	05/15/09	10
Ethylbenzene	BDL	10.	ug/l	8260B	05/15/09	10
Ethyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	10
Hexachloro-1,3-butadiene	BDL	10.	ug/l	8260B	05/15/09	10
2-Hexanone	BDL	500	ug/l	8260B	05/15/09	10
Iodomethane	BDL	500	ug/l	8260B	05/15/09	10
Isopropylbenzene	BDL	10.	ug/l	8260B	05/15/09	10
p-Isopropyltoluene	BDL	10.	ug/l	8260B	05/15/09	10
Methacrylonitrile	BDL	500	ug/l	8260B	05/15/09	10
Methylene Chloride	BDL	50.	ug/l	8260B	05/15/09	10
Methyl methacrylate	BDL	500	ug/l	8260B	05/15/09	10
4-Methyl-2-pentanone (MIBK)	BDL	500	ug/l	8260B	05/15/09	10
Methyl tert-butyl ether	34.	10.	ug/l	8260B	05/15/09	10
Naphthalene	BDL	50.	ug/l	8260B	05/15/09	10
Pentachloroethane	BDL	500	ug/l	8260B	05/15/09	10
Propionitrile	BDL	500	ug/l	8260B	05/15/09	10
n-Propylbenzene	BDL	10.	ug/l	8260B	05/15/09	10
Styrene	BDL	10.	ug/l	8260B	05/15/09	10
1,1,2,2-Tetrachloroethane	BDL	10.	ug/l	8260B	05/15/09	10
1,1,1,2-Tetrachloroethane	BDL	10.	ug/l	8260B	05/15/09	10
Tetrachloroethene	BDL	10.	ug/l	8260B	05/15/09	10
Tetrahydrofuran	BDL	50.	ug/l	8260B	05/15/09	10
Toluene	BDL	50.	ug/l	8260B	05/15/09	10
1,2,3-Trichlorobenzene	BDL	10.	ug/l	8260B	05/15/09	10
1,2,4-Trichlorobenzene	BDL	10.	ug/l	8260B	05/15/09	10
1,1,1-Trichloroethane	BDL	10.	ug/l	8260B	05/15/09	10
1,1,2-Trichloroethane	BDL	10.	ug/l	8260B	05/15/09	10
Trichloroethene	BDL	10.	ug/l	8260B	05/15/09	10
Trichlorofluoromethane	BDL	50.	ug/l	8260B	05/15/09	10
1,2,3-Trichloropropane	BDL	10.	ug/l	8260B	05/15/09	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : DUP-1
Collected By : Bryan Ross
Collection Date : 05/12/09 10:30

ESC Sample # : L402485-22

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	10.	ug/l	8260B	05/15/09	10
1,3,5-Trimethylbenzene	BDL	10.	ug/l	8260B	05/15/09	10
Vinyl chloride	48.	10.	ug/l	8260B	05/15/09	10
Xylenes, Total	BDL	30.	ug/l	8260B	05/15/09	10
Surrogate Recovery						
Toluene-d8	99.5		% Rec.	8260B	05/15/09	10
Dibromofluoromethane	115.		% Rec.	8260B	05/15/09	10
4-Bromofluorobenzene	89.8		% Rec.	8260B	05/15/09	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

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May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : EB-1
Collected By : Bryan Ross
Collection Date : 05/12/09 18:45

ESC Sample # : L402485-23
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	2.0	1.0	ug/l	6020	05/20/09	1
Mercury	BDL	0.20	ug/l	7470A	05/15/09	1
Barium	BDL	5.0	ug/l	6010B	05/19/09	1
Cadmium	BDL	5.0	ug/l	6010B	05/19/09	1
Chromium	BDL	10.	ug/l	6010B	05/19/09	1
Lead	BDL	5.0	ug/l	6010B	05/21/09	1
Manganese	BDL	10.	ug/l	6010B	05/19/09	1
Nickel	BDL	20.	ug/l	6010B	05/19/09	1
Selenium	BDL	20.	ug/l	6010B	05/19/09	1
Silver	BDL	10.	ug/l	6010B	05/19/09	1
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/15/09	1
Acrolein	BDL	50.	ug/l	8260B	05/15/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/15/09	1
Benzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/15/09	1
Bromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/15/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/15/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/15/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/15/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/15/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/15/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/15/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1

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Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

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Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : EB-1
Collected By : Bryan Ross
Collection Date : 05/12/09 18:45

ESC Sample # : L402485-23
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/15/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/15/09	1
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/15/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/15/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/15/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/15/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/15/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/15/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/15/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/15/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/15/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/15/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/15/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/15/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/15/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/15/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Styrene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/15/09	1
Toluene	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/15/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/15/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/15/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : EB-1
Collected By : Bryan Ross
Collection Date : 05/12/09 18:45

ESC Sample # : L402485-23

Site ID :

Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/15/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/15/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	05/15/09	1
Dibromofluoromethane	111.		% Rec.	8260B	05/15/09	1
4-Bromofluorobenzene	83.8		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-24
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-8B Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 18:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	0.0088	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/15/09	1

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-25
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-8C Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 18:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	0.080	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	98.9		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-26
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-9B Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 17:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	0.029	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-27
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-10B Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 16:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	0.036	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-28
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-10C Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 16:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	0.17	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-29
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-11B Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 10:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	0.069	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	99.4		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-30
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-12A Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 14:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	BDL	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-31
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-12B Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 15:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	BDL	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/15/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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May 22, 2009

Date Received : May 14, 2009 ESC Sample # : L402485-32
Description : QAS Marsh Avenue Site ID :
Sample ID : GW-12C Project # : 2641.10-300
Collected By : Bryan Ross
Collection Date : 05/12/09 15:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
1,4-Dioxane	0.093	0.0040	mg/l	8260B	05/15/09	1
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	05/15/09	1

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May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : TRIP BLANK 1
Collected By : Bryan Ross
Collection Date : 05/12/09 18:50

ESC Sample # : L402485-33
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/14/09	1
Acrolein	BDL	50.	ug/l	8260B	05/14/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/14/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/14/09	1
Benzene	BDL	1.0	ug/l	8260B	05/14/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Bromochloromethane	BDL	1.0	ug/l	8260B	05/14/09	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	05/14/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/14/09	1
Bromomethane	BDL	5.0	ug/l	8260B	05/14/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/14/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/14/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/14/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/14/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/14/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/14/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/14/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/14/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/14/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/14/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/14/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/14/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/14/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : TRIP BLANK 1
Collected By : Bryan Ross
Collection Date : 05/12/09 18:50

ESC Sample # : L402485-33
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/14/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/14/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/14/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/14/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/14/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/14/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/14/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/14/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/14/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/14/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/14/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/14/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/14/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/14/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/14/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Styrene	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/14/09	1
Toluene	BDL	5.0	ug/l	8260B	05/14/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/14/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/14/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/14/09	1
Surrogate Recovery						
Toluene-d8	97.0		% Rec.	8260B	05/14/09	1
Dibromofluoromethane	113.		% Rec.	8260B	05/14/09	1
4-Bromofluorobenzene	90.8		% Rec.	8260B	05/14/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : TRIP BLANK 2
Collected By : Bryan Ross
Collection Date : 05/12/09 18:50

ESC Sample # : L402485-34
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	50.	ug/l	8260B	05/14/09	1
Acrolein	BDL	50.	ug/l	8260B	05/14/09	1
Acrylonitrile	BDL	50.	ug/l	8260B	05/14/09	1
Allyl chloride	BDL	50.	ug/l	8260B	05/14/09	1
Benzene	BDL	1.0	ug/l	8260B	05/14/09	1
Bromobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Bromochloromethane	BDL	1.0	ug/l	8260B	05/14/09	1
Bromodichloromethane	BDL	1.0	ug/l	8260B	05/14/09	1
Bromoform	BDL	1.0	ug/l	8260B	05/14/09	1
Bromomethane	BDL	5.0	ug/l	8260B	05/14/09	1
2-Butanone (MEK)	BDL	50.	ug/l	8260B	05/14/09	1
n-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
sec-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
tert-Butylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Carbon disulfide	BDL	1.0	ug/l	8260B	05/14/09	1
Carbon tetrachloride	BDL	1.0	ug/l	8260B	05/14/09	1
Chlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Chlorodibromomethane	BDL	1.0	ug/l	8260B	05/14/09	1
Chloroethane	BDL	5.0	ug/l	8260B	05/14/09	1
2-Chloroethyl vinyl ether	BDL	10.	ug/l	8260B	05/14/09	1
Chloroform	BDL	5.0	ug/l	8260B	05/14/09	1
Chloromethane	BDL	2.5	ug/l	8260B	05/14/09	1
2-Chlorotoluene	BDL	1.0	ug/l	8260B	05/14/09	1
4-Chlorotoluene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dibromo-3-Chloropropane	BDL	5.0	ug/l	8260B	05/14/09	1
1,2-Dibromoethane	BDL	1.0	ug/l	8260B	05/14/09	1
Dibromomethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
trans-1,4-Dichloro-2-butene	BDL	1.0	ug/l	8260B	05/14/09	1
Dichlorodifluoromethane	BDL	5.0	ug/l	8260B	05/14/09	1
1,1-Dichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1-Dichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
1,3-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
2,2-Dichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	8260B	05/14/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)



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Est. 1970

REPORT OF ANALYSIS

Susan L. McCart
Aquaterra Environmental Solutions,
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

May 22, 2009

Date Received : May 14, 2009
Description : QAS Marsh Avenue
Sample ID : TRIP BLANK 2
Collected By : Bryan Ross
Collection Date : 05/12/09 18:50

ESC Sample # : L402485-34
Site ID :
Project # : 2641.10-300

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-isopropyl ether	BDL	1.0	ug/l	8260B	05/14/09	1
1,4-Dioxane	BDL	100	ug/l	8260B	05/14/09	1
Ethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Ethyl methacrylate	BDL	5.0	ug/l	8260B	05/14/09	1
Hexachloro-1,3-butadiene	BDL	1.0	ug/l	8260B	05/14/09	1
2-Hexanone	BDL	50.	ug/l	8260B	05/14/09	1
Iodomethane	BDL	50.	ug/l	8260B	05/14/09	1
Isopropylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
p-Isopropyltoluene	BDL	1.0	ug/l	8260B	05/14/09	1
Methacrylonitrile	BDL	50.	ug/l	8260B	05/14/09	1
Methylene Chloride	BDL	5.0	ug/l	8260B	05/14/09	1
Methyl methacrylate	BDL	50.	ug/l	8260B	05/14/09	1
4-Methyl-2-pentanone (MIBK)	BDL	50.	ug/l	8260B	05/14/09	1
Methyl tert-butyl ether	BDL	1.0	ug/l	8260B	05/14/09	1
Naphthalene	BDL	5.0	ug/l	8260B	05/14/09	1
Pentachloroethane	BDL	50.	ug/l	8260B	05/14/09	1
Propionitrile	BDL	50.	ug/l	8260B	05/14/09	1
n-Propylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Styrene	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,1,2-Tetrachloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
Tetrachloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
Tetrahydrofuran	BDL	5.0	ug/l	8260B	05/14/09	1
Toluene	BDL	5.0	ug/l	8260B	05/14/09	1
1,2,3-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,2,4-Trichlorobenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	8260B	05/14/09	1
Trichloroethene	BDL	1.0	ug/l	8260B	05/14/09	1
Trichlorofluoromethane	BDL	5.0	ug/l	8260B	05/14/09	1
1,2,3-Trichloropropane	BDL	1.0	ug/l	8260B	05/14/09	1
1,2,4-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
1,3,5-Trimethylbenzene	BDL	1.0	ug/l	8260B	05/14/09	1
Vinyl chloride	BDL	1.0	ug/l	8260B	05/14/09	1
Xylenes, Total	BDL	3.0	ug/l	8260B	05/14/09	1
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	05/14/09	1
Dibromofluoromethane	113.		% Rec.	8260B	05/14/09	1
4-Bromofluorobenzene	85.2		% Rec.	8260B	05/14/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L402485-12	WG422280	SAMP	Silver	R747587	P1J6
	WG422088	SAMP	Arsenic	R750808	J5
	WG421672	SAMP	2-Chloroethyl vinyl ether	R740549	J3
	WG421672	SAMP	Tetrahydrofuran	R740549	J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
05/22/09 at 12:40:36

TSR Signing Reports: 206



**ENVIRONMENTAL
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Aquaterra Environmental Solutions, Inc.

Susan L. McCart

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Overland Park, KS 66213

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Tax I.D. 62-0814289

Est. 1970

**Quality Assurance Report
Level II**

L402485

June 17, 2009

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG421706	05/14/09 22:32
1,1,1-Trichloroethane	< .001	mg/l			WG421706	05/14/09 22:32
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG421706	05/14/09 22:32
1,1,2-Trichloroethane	< .001	mg/l			WG421706	05/14/09 22:32
1,1-Dichloroethane	< .001	mg/l			WG421706	05/14/09 22:32
1,1-Dichloroethene	< .001	mg/l			WG421706	05/14/09 22:32
1,1-Dichloropropene	< .001	mg/l			WG421706	05/14/09 22:32
1,2,3-Trichlorobenzene	< .001	mg/l			WG421706	05/14/09 22:32
1,2,3-Trichloropropane	< .001	mg/l			WG421706	05/14/09 22:32
1,2,4-Trichlorobenzene	< .001	mg/l			WG421706	05/14/09 22:32
1,2,4-Trimethylbenzene	< .001	mg/l			WG421706	05/14/09 22:32
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG421706	05/14/09 22:32
1,2-Dibromoethane	< .001	mg/l			WG421706	05/14/09 22:32
1,2-Dichlorobenzene	< .001	mg/l			WG421706	05/14/09 22:32
1,2-Dichloroethane	< .001	mg/l			WG421706	05/14/09 22:32
1,2-Dichloropropane	< .001	mg/l			WG421706	05/14/09 22:32
1,3,5-Trimethylbenzene	< .001	mg/l			WG421706	05/14/09 22:32
1,3-Dichlorobenzene	< .001	mg/l			WG421706	05/14/09 22:32
1,3-Dichloropropane	< .001	mg/l			WG421706	05/14/09 22:32
1,4-Dichlorobenzene	< .001	mg/l			WG421706	05/14/09 22:32
1,4-Dioxane	< .004	mg/l			WG421706	05/14/09 22:32
2,2-Dichloropropane	< .001	mg/l			WG421706	05/14/09 22:32
2-Butanone (MEK)	< .01	mg/l			WG421706	05/14/09 22:32
2-Chloroethyl vinyl ether	< .001	mg/l			WG421706	05/14/09 22:32
2-Chlorotoluene	< .001	mg/l			WG421706	05/14/09 22:32
2-Hexanone	< .01	mg/l			WG421706	05/14/09 22:32
4-Chlorotoluene	< .001	mg/l			WG421706	05/14/09 22:32
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG421706	05/14/09 22:32
Acetone	< .05	mg/l			WG421706	05/14/09 22:32
Acrolein	< .05	mg/l			WG421706	05/14/09 22:32
Acrylonitrile	< .01	mg/l			WG421706	05/14/09 22:32
Allyl chloride	< .005	mg/l			WG421706	05/14/09 22:32
Benzene	< .001	mg/l			WG421706	05/14/09 22:32
Bromobenzene	< .001	mg/l			WG421706	05/14/09 22:32
Bromochloromethane	< .001	mg/l			WG421706	05/14/09 22:32
Bromodichloromethane	< .001	mg/l			WG421706	05/14/09 22:32
Bromoform	< .001	mg/l			WG421706	05/14/09 22:32
Bromomethane	< .005	mg/l			WG421706	05/14/09 22:32
Carbon disulfide	< .001	mg/l			WG421706	05/14/09 22:32
Carbon tetrachloride	< .001	mg/l			WG421706	05/14/09 22:32
Chlorobenzene	< .001	mg/l			WG421706	05/14/09 22:32
Chlorodibromomethane	< .001	mg/l			WG421706	05/14/09 22:32
Chloroethane	< .001	mg/l			WG421706	05/14/09 22:32
Chloroform	< .005	mg/l			WG421706	05/14/09 22:32
Chloromethane	< .001	mg/l			WG421706	05/14/09 22:32
cis-1,2-Dichloroethene	< .001	mg/l			WG421706	05/14/09 22:32
cis-1,3-Dichloropropene	< .001	mg/l			WG421706	05/14/09 22:32
Di-isopropyl ether	< .001	mg/l			WG421706	05/14/09 22:32
Dibromomethane	< .001	mg/l			WG421706	05/14/09 22:32
Dichlorodifluoromethane	< .005	mg/l			WG421706	05/14/09 22:32
Ethylbenzene	< .001	mg/l			WG421706	05/14/09 22:32
Hexachloro-1,3-butadiene	< .001	mg/l			WG421706	05/14/09 22:32
Iodomethane	< .01	mg/l			WG421706	05/14/09 22:32
Isopropylbenzene	< .001	mg/l			WG421706	05/14/09 22:32
Methyl tert-butyl ether	< .001	mg/l			WG421706	05/14/09 22:32
Methylene Chloride	< .005	mg/l			WG421706	05/14/09 22:32
n-Butylbenzene	< .001	mg/l			WG421706	05/14/09 22:32
n-Propylbenzene	< .001	mg/l			WG421706	05/14/09 22:32
Naphthalene	< .005	mg/l			WG421706	05/14/09 22:32

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L402485

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Est. 1970

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
p-Isopropyltoluene	< .001	mg/l			WG421706	05/14/09 22:32
sec-Butylbenzene	< .001	mg/l			WG421706	05/14/09 22:32
Styrene	< .001	mg/l			WG421706	05/14/09 22:32
tert-Butylbenzene	< .001	mg/l			WG421706	05/14/09 22:32
Tetrachloroethene	< .001	mg/l			WG421706	05/14/09 22:32
Tetrahydrofuran	< .005	mg/l			WG421706	05/14/09 22:32
Toluene	< .005	mg/l			WG421706	05/14/09 22:32
trans-1,2-Dichloroethene	< .001	mg/l			WG421706	05/14/09 22:32
trans-1,3-Dichloropropene	< .001	mg/l			WG421706	05/14/09 22:32
trans-1,4-Dichloro-2-butene	< .0025	mg/l			WG421706	05/14/09 22:32
Trichloroethene	< .001	mg/l			WG421706	05/14/09 22:32
Trichlorofluoromethane	< .005	mg/l			WG421706	05/14/09 22:32
Vinyl chloride	< .001	mg/l			WG421706	05/14/09 22:32
4-Bromofluorobenzene	% Rec.	89.15		75-128	WG421706	05/14/09 22:32
Dibromofluoromethane	% Rec.	107.6		79-125	WG421706	05/14/09 22:32
Toluene-d8		% Rec.	100.1	87-114	WG421706	05/14/09 22:32
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG421672	05/15/09 04:08
1,1,1-Trichloroethane	< .001	mg/l			WG421672	05/15/09 04:08
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG421672	05/15/09 04:08
1,1,2-Trichloroethane	< .001	mg/l			WG421672	05/15/09 04:08
1,1-Dichloroethane	< .001	mg/l			WG421672	05/15/09 04:08
1,1-Dichloropropene	< .001	mg/l			WG421672	05/15/09 04:08
1,2,3-Trichlorobenzene	< .001	mg/l			WG421672	05/15/09 04:08
1,2,3-Trichloropropane	< .001	mg/l			WG421672	05/15/09 04:08
1,2,4-Trichlorobenzene	< .001	mg/l			WG421672	05/15/09 04:08
1,2,4-Trimethylbenzene	< .001	mg/l			WG421672	05/15/09 04:08
1,2-Dibromo-3-Chloropropane	< .005	mg/l			WG421672	05/15/09 04:08
1,2-Dibromoethane	< .001	mg/l			WG421672	05/15/09 04:08
1,2-Dichlorobenzene	< .001	mg/l			WG421672	05/15/09 04:08
1,2-Dichloroethane	< .001	mg/l			WG421672	05/15/09 04:08
1,2-Dichloropropane	< .001	mg/l			WG421672	05/15/09 04:08
1,3,5-Trimethylbenzene	< .001	mg/l			WG421672	05/15/09 04:08
1,3-Dichlorobenzene	< .001	mg/l			WG421672	05/15/09 04:08
1,3-Dichloropropane	< .001	mg/l			WG421672	05/15/09 04:08
1,4-Dichlorobenzene	< .001	mg/l			WG421672	05/15/09 04:08
1,4-Dioxane	< .004	mg/l			WG421672	05/15/09 04:08
2,2-Dichloropropane	< .001	mg/l			WG421672	05/15/09 04:08
2-Butanone (MEK)	< .01	mg/l			WG421672	05/15/09 04:08
2-Chloroethyl vinyl ether	< .001	mg/l			WG421672	05/15/09 04:08
2-Chlorotoluene	< .001	mg/l			WG421672	05/15/09 04:08
2-Hexanone	< .01	mg/l			WG421672	05/15/09 04:08
4-Chlorotoluene	< .001	mg/l			WG421672	05/15/09 04:08
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG421672	05/15/09 04:08
Acetone	< .05	mg/l			WG421672	05/15/09 04:08
Acrolein	< .05	mg/l			WG421672	05/15/09 04:08
Acrylonitrile	< .01	mg/l			WG421672	05/15/09 04:08
Allyl chloride	< .005	mg/l			WG421672	05/15/09 04:08
Benzene	< .001	mg/l			WG421672	05/15/09 04:08
Bromobenzene	< .001	mg/l			WG421672	05/15/09 04:08
Bromochloromethane	< .001	mg/l			WG421672	05/15/09 04:08
Bromodichloromethane	< .001	mg/l			WG421672	05/15/09 04:08
Bromoform	< .001	mg/l			WG421672	05/15/09 04:08
Bromomethane	< .005	mg/l			WG421672	05/15/09 04:08
Carbon disulfide	< .001	mg/l			WG421672	05/15/09 04:08
Carbon tetrachloride	< .001	mg/l			WG421672	05/15/09 04:08
Chlorobenzene	< .001	mg/l			WG421672	05/15/09 04:08

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Chlorodibromomethane	< .001	mg/l			WG421672	05/15/09 04:08
Chloroethane	< .001	mg/l			WG421672	05/15/09 04:08
Chloroform	< .005	mg/l			WG421672	05/15/09 04:08
Chloromethane	< .001	mg/l			WG421672	05/15/09 04:08
cis-1,2-Dichloroethene	< .001	mg/l			WG421672	05/15/09 04:08
cis-1,3-Dichloropropene	< .001	mg/l			WG421672	05/15/09 04:08
Di-isopropyl ether	< .001	mg/l			WG421672	05/15/09 04:08
Dibromomethane	< .001	mg/l			WG421672	05/15/09 04:08
Dichlorodifluoromethane	< .005	mg/l			WG421672	05/15/09 04:08
Ethylbenzene	< .001	mg/l			WG421672	05/15/09 04:08
Hexachloro-1,3-butadiene	< .001	mg/l			WG421672	05/15/09 04:08
Iodomethane	< .01	mg/l			WG421672	05/15/09 04:08
Isopropylbenzene	< .001	mg/l			WG421672	05/15/09 04:08
Methyl tert-butyl ether	< .001	mg/l			WG421672	05/15/09 04:08
Methylene Chloride	< .005	mg/l			WG421672	05/15/09 04:08
n-Butylbenzene	< .001	mg/l			WG421672	05/15/09 04:08
n-Propylbenzene	< .001	mg/l			WG421672	05/15/09 04:08
Naphthalene	< .005	mg/l			WG421672	05/15/09 04:08
p-Isopropyltoluene	< .001	mg/l			WG421672	05/15/09 04:08
sec-Butylbenzene	< .001	mg/l			WG421672	05/15/09 04:08
Styrene	< .001	mg/l			WG421672	05/15/09 04:08
tert-Butylbenzene	< .001	mg/l			WG421672	05/15/09 04:08
Tetrachloroethene	< .001	mg/l			WG421672	05/15/09 04:08
Tetrahydrofuran	< .005	mg/l			WG421672	05/15/09 04:08
Toluene	< .005	mg/l			WG421672	05/15/09 04:08
trans-1,2-Dichloroethene	< .001	mg/l			WG421672	05/15/09 04:08
trans-1,3-Dichloropropene	< .001	mg/l			WG421672	05/15/09 04:08
trans-1,4-Dichloro-2-butene	< .0025	mg/l			WG421672	05/15/09 04:08
Trichloroethene	< .001	mg/l			WG421672	05/15/09 04:08
Trichlorofluoromethane	< .005	mg/l			WG421672	05/15/09 04:08
Vinyl chloride	< .001	mg/l			WG421672	05/15/09 04:08
4-Bromofluorobenzene		% Rec.	102.6	75-128	WG421672	05/15/09 04:08
Dibromofluoromethane		% Rec.	111.5	79-125	WG421672	05/15/09 04:08
Toluene-d8		% Rec.	97.31	87-114	WG421672	05/15/09 04:08
1,4-Dioxane	< .004	mg/l			WG421739	05/15/09 15:27
Toluene-d8		% Rec.	100.7	87-114	WG421739	05/15/09 15:27
Mercury	< .0002	mg/l			WG421693	05/15/09 22:32
Mercury	< .0002	mg/l			WG421694	05/15/09 21:12
1,4-Dioxane	< .004	mg/l			WG421799	05/15/09 16:39
cis-1,2-Dichloroethene	< .001	mg/l			WG421799	05/15/09 16:39
4-Bromofluorobenzene		% Rec.	125.1	75-128	WG421799	05/15/09 16:39
Dibromofluoromethane		% Rec.	110.0	79-125	WG421799	05/15/09 16:39
Toluene-d8		% Rec.	95.18	87-114	WG421799	05/15/09 16:39
Barium	< .005	mg/l			WG422352	05/19/09 19:06
Cadmium	< .005	mg/l			WG422352	05/19/09 19:06
Chromium	< .01	mg/l			WG422352	05/19/09 19:06
Manganese	< .01	mg/l			WG422352	05/19/09 19:06
Nickel	< .02	mg/l			WG422352	05/19/09 19:06
Selenium	< .02	mg/l			WG422352	05/19/09 19:06

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Silver	< .01	mg/l			WG422352	05/19/09 19:06
Barium	< .005	mg/l			WG422230	05/19/09 08:37
Cadmium	< .005	mg/l			WG422230	05/19/09 08:37
Chromium	< .01	mg/l			WG422230	05/19/09 08:37
Lead	< .005	mg/l			WG422230	05/19/09 08:37
Manganese	< .01	mg/l			WG422230	05/19/09 08:37
Nickel	< .02	mg/l			WG422230	05/19/09 08:37
Selenium	< .02	mg/l			WG422230	05/19/09 08:37
Silver	< .01	mg/l			WG422230	05/19/09 08:37
Barium	< .005	mg/l			WG422280	05/20/09 03:06
Cadmium	< .005	mg/l			WG422280	05/20/09 03:06
Chromium	< .01	mg/l			WG422280	05/20/09 03:06
Lead	< .005	mg/l			WG422280	05/20/09 03:06
Manganese	< .01	mg/l			WG422280	05/20/09 03:06
Nickel	< .02	mg/l			WG422280	05/20/09 03:06
Selenium	< .02	mg/l			WG422280	05/20/09 03:06
Silver	< .01	mg/l			WG422280	05/20/09 03:06
Lead	< .005	mg/l			WG422352	05/21/09 19:45
Arsenic	< .001	mg/l			WG422088	05/21/09 10:18

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
			Duplicate				
Mercury	mg/l	0.00	0.00	0.00	20	L402316-01	WG421693
Mercury	mg/l	0.00	0.00	0.00	20	L402485-12	WG421694
Barium	mg/l	0.00	0.00	0.00	20	L402485-23	WG422352
Cadmium	mg/l	0.00	0.00	0.00	20	L402485-23	WG422352
Chromium	mg/l	0.00	0.00	0.00	20	L402485-23	WG422352
Manganese	mg/l	0.00	0.00	0.00	20	L402485-23	WG422352
Nickel	mg/l	0.00	0.00	0.00	20	L402485-23	WG422352
Selenium	mg/l	0.00	0.00	0.00	20	L402485-23	WG422352
Silver	mg/l	0.00	0.00	0.00	20	L402485-23	WG422352
Barium	mg/l	0.0867	0.0833	4.00	20	L402459-16	WG422230
Cadmium	mg/l	0.00	0.00	0.00	20	L402459-16	WG422230
Chromium	mg/l	0.00	0.00190	NA	20	L402459-16	WG422230
Lead	mg/l	0.00	0.00	0.00	20	L402459-16	WG422230
Manganese	mg/l	0.497	0.500	0.602	20	L402459-16	WG422230
Nickel	mg/l	0.00	0.00	0.00	20	L402459-16	WG422230
Selenium	mg/l	0.00	0.00240	NA	20	L402459-16	WG422230
Silver	mg/l	0.00	0.00350	NA	20	L402459-16	WG422230
Barium	mg/l	0.579	0.580	0.173	20	L402485-12	WG422280
Cadmium	mg/l	0.00	0.00	0.00	20	L402485-12	WG422280
Chromium	mg/l	0.00	0.00	0.00	20	L402485-12	WG422280

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Analyte	Units	Result	Duplicate	Duplicate	RPD	Limit	Ref Samp	Batch
Lead	mg/l	0.00	0.00	0.00	20	L402485-12	WG422280	
Manganese	mg/l	0.844	0.850	0.708	20	L402485-12	WG422280	
Nickel	mg/l	0.0749	0.0760	1.46	20	L402485-12	WG422280	
Selenium	mg/l	0.00	0.00	0.00	20	L402485-12	WG422280	
Silver	mg/l	0.00	0.00	0.00	20	L402485-12	WG422280	
Arsenic	mg/l	0.385	0.00	NA	20	L402611-01	WG422231	
Lead	mg/l	0.00	0.00	0.00	20	L402485-23	WG422352	
Arsenic	mg/l	0.0591	0.0600	1.51	20	L402485-12	WG422088	

Analyte	Units	Laboratory	Control	Sample	% Rec	Limit	Batch
		Known	Val	Result			
1,1,1,2-Tetrachloroethane	mg/l	.05		0.0500	100.	75-134	WG421706
1,1,1-Trichloroethane	mg/l	.05		0.0468	93.5	67-137	WG421706
1,1,2,2-Tetrachloroethane	mg/l	.05		0.0599	120.	72-128	WG421706
1,1,2-Trichloroethane	mg/l	.05		0.0523	105.	79-123	WG421706
1,1-Dichloroethane	mg/l	.05		0.0526	105.	67-133	WG421706
1,1-Dichloroethene	mg/l	.05		0.0543	109.	60-130	WG421706
1,1-Dichloropropene	mg/l	.05		0.0527	105.	68-132	WG421706
1,2,3-Trichlorobenzene	mg/l	.05		0.0555	111.	63-138	WG421706
1,2,3-Trichloropropane	mg/l	.05		0.0525	105.	68-130	WG421706
1,2,4-Trichlorobenzene	mg/l	.05		0.0522	104.	65-137	WG421706
1,2,4-Trimethylbenzene	mg/l	.05		0.0467	93.3	72-135	WG421706
1,2-Dibromo-3-Chloropropane	mg/l	.05		0.0583	117.	55-134	WG421706
1,2-Dibromoethane	mg/l	.05		0.0555	111.	75-126	WG421706
1,2-Dichlorobenzene	mg/l	.05		0.0534	107.	75-122	WG421706
1,2-Dichloroethane	mg/l	.05		0.0496	99.1	63-137	WG421706
1,2-Dichloropropane	mg/l	.05		0.0513	103.	74-122	WG421706
1,3,5-Trimethylbenzene	mg/l	.05		0.0458	91.6	73-134	WG421706
1,3-Dichlorobenzene	mg/l	.05		0.0487	97.3	73-131	WG421706
1,3-Dichloropropane	mg/l	.05		0.0512	102.	77-119	WG421706
1,4-Dichlorobenzene	mg/l	.05		0.0495	99.0	70-121	WG421706
1,4-Dioxane	mg/l	.05		0.00	0.00*	70-130	WG421706
2,2-Dichloropropane	mg/l	.05		0.0518	104.	46-151	WG421706
2-Butanone (MEK)	mg/l	.25		0.290	116.	53-132	WG421706
2-Chloroethyl vinyl ether	mg/l	.25		0.0673	26.9	0-171	WG421706
2-Chlorotoluene	mg/l	.05		0.0522	104.	74-128	WG421706
2-Hexanone	mg/l	.25		0.343	137.	56-147	WG421706
4-Chlorotoluene	mg/l	.05		0.0502	100.	74-130	WG421706
4-Methyl-2-pentanone (MIBK)	mg/l	.25		0.338	135.	60-142	WG421706
Acetone	mg/l	.25		0.256	102.	48-134	WG421706
Acrolein	mg/l	.25		0.287	115.	6-182	WG421706
Acrylonitrile	mg/l	.25		0.305	122.	60-140	WG421706
Benzene	mg/l	.05		0.0545	109.	67-126	WG421706
Bromobenzene	mg/l	.05		0.0495	98.9	76-123	WG421706
Bromochloromethane	mg/l	.05		0.0552	110.	75-128	WG421706
Bromodichloromethane	mg/l	.05		0.0498	99.6	68-133	WG421706
Bromoform	mg/l	.05		0.0540	108.	60-139	WG421706
Bromomethane	mg/l	.05		0.0536	107.	45-175	WG421706
Carbon disulfide	mg/l	.05		0.0524	105.	41-148	WG421706
Carbon tetrachloride	mg/l	.05		0.0444	88.8	64-141	WG421706
Chlorobenzene	mg/l	.05		0.0521	104.	77-125	WG421706
Chlorodibromomethane	mg/l	.05		0.0523	105.	73-138	WG421706

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**ENVIRONMENTAL
SCIENCE CORP.**

Aquaterra Environmental Solutions, Inc.
Susan L. McCart
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

Quality Assurance Report
Level II

L402485

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 17, 2009

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Chloroethane	mg/l	.05	0.0534	107.	49-155	WG421706
Chloroform	mg/l	.05	0.0480	96.0	66-126	WG421706
Chloromethane	mg/l	.05	0.0527	105.	45-152	WG421706
cis-1,2-Dichloroethene	mg/l	.05	0.0537	107.	72-128	WG421706
cis-1,3-Dichloropropene	mg/l	.05	0.0538	108.	73-131	WG421706
Di-isopropyl ether	mg/l	.05	0.0575	115.	63-139	WG421706
Dibromomethane	mg/l	.05	0.0510	102.	73-125	WG421706
Dichlorodifluoromethane	mg/l	.05	0.0501	100.	39-189	WG421706
Ethylbenzene	mg/l	.05	0.0516	103.	76-129	WG421706
Hexachloro-1,3-butadiene	mg/l	.05	0.0473	94.7	67-135	WG421706
Iodomethane	mg/l	.25	0.234	93.5	61-148	WG421706
Isopropylbenzene	mg/l	.05	0.0506	101.	73-132	WG421706
Methyl tert-butyl ether	mg/l	.05	0.0581	116.	51-142	WG421706
Methylene Chloride	mg/l	.05	0.0503	101.	64-125	WG421706
n-Butylbenzene	mg/l	.05	0.0539	108.	63-142	WG421706
n-Propylbenzene	mg/l	.05	0.0494	98.7	71-132	WG421706
Naphthalene	mg/l	.05	0.0618	124.	56-145	WG421706
p-Isopropyltoluene	mg/l	.05	0.0454	90.8	68-138	WG421706
sec-Butylbenzene	mg/l	.05	0.0505	101.	70-135	WG421706
Styrene	mg/l	.05	0.0470	94.0	78-130	WG421706
tert-Butylbenzene	mg/l	.05	0.0507	101.	72-134	WG421706
Tetrachloroethene	mg/l	.05	0.0420	84.1	67-135	WG421706
Tetrahydrofuran	mg/l	.05	0.0567	113.	50-140	WG421706
Toluene	mg/l	.05	0.0488	97.6	72-122	WG421706
trans-1,2-Dichloroethene	mg/l	.05	0.0506	101.	67-129	WG421706
trans-1,3-Dichloropropene	mg/l	.05	0.0534	107.	66-137	WG421706
trans-1,4-Dichloro-2-butene	mg/l	.05	0.0522	104.	48-139	WG421706
Trichloroethene	mg/l	.05	0.0489	97.8	74-126	WG421706
Trichlorofluoromethane	mg/l	.05	0.0527	105.	54-156	WG421706
Vinyl chloride	mg/l	.05	0.0485	97.1	55-153	WG421706
4-Bromofluorobenzene				93.19	75-128	WG421706
Dibromofluoromethane				101.4	79-125	WG421706
Toluene-d8				102.5	87-114	WG421706
1,1,1,2-Tetrachloroethane	mg/l	.05	0.0455	91.0	75-134	WG421672
1,1,1-Trichloroethane	mg/l	.05	0.0479	95.7	67-137	WG421672
1,1,2,2-Tetrachloroethane	mg/l	.05	0.0511	102.	72-128	WG421672
1,1,2-Trichloroethane	mg/l	.05	0.0517	103.	79-123	WG421672
1,1-Dichloroethane	mg/l	.05	0.0448	89.6	67-133	WG421672
1,1-Dichloroethene	mg/l	.05	0.0455	91.0	60-130	WG421672
1,1-Dichloropropene	mg/l	.05	0.0444	88.7	68-132	WG421672
1,2,3-Trichlorobenzene	mg/l	.05	0.0457	91.5	63-138	WG421672
1,2,3-Trichloropropane	mg/l	.05	0.0513	103.	68-130	WG421672
1,2,4-Trichlorobenzene	mg/l	.05	0.0441	88.2	65-137	WG421672
1,2,4-Trimethylbenzene	mg/l	.05	0.0451	90.1	72-135	WG421672
1,2-Dibromo-3-Chloropropane	mg/l	.05	0.0537	107.	55-134	WG421672
1,2-Dibromoethane	mg/l	.05	0.0511	102.	75-126	WG421672
1,2-Dichlorobenzene	mg/l	.05	0.0456	91.3	75-122	WG421672
1,2-Dichloroethane	mg/l	.05	0.0513	103.	63-137	WG421672
1,2-Dichloropropane	mg/l	.05	0.0420	84.0	74-122	WG421672
1,3,5-Trimethylbenzene	mg/l	.05	0.0453	90.6	73-134	WG421672
1,3-Dichlorobenzene	mg/l	.05	0.0450	90.0	73-131	WG421672
1,3-Dichloropropane	mg/l	.05	0.0480	96.1	77-119	WG421672
1,4-Dichlorobenzene	mg/l	.05	0.0436	87.2	70-121	WG421672
1,4-Dioxane	mg/l	.05	0.0811	162.*	70-130	WG421672
2,2-Dichloropropane	mg/l	.05	0.0450	89.9	46-151	WG421672
2-Butanone (MEK)	mg/l	.25	0.223	89.3	53-132	WG421672
2-Chloroethyl vinyl ether	mg/l	.25	0.237	94.6	0-171	WG421672

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Analyte	Units	Laboratory Known Val	Control Sample Result	% Rec	Limit	Batch
2-Chlorotoluene	mg/l	.05	0.0459	91.7	74-128	WG421672
2-Hexanone	mg/l	.25	0.246	98.6	56-147	WG421672
4-Chlorotoluene	mg/l	.05	0.0450	90.1	74-130	WG421672
4-Methyl-2-pentanone (MIBK)	mg/l	.25	0.238	95.2	60-142	WG421672
Acetone	mg/l	.25	0.232	92.6	48-134	WG421672
Acrolein	mg/l	.25	0.231	92.4	6-182	WG421672
Acrylonitrile	mg/l	.25	0.237	94.9	60-140	WG421672
Benzene	mg/l	.05	0.0427	85.4	67-126	WG421672
Bromobenzene	mg/l	.05	0.0473	94.7	76-123	WG421672
Bromo-chloromethane	mg/l	.05	0.0505	101.	75-128	WG421672
Bromodichloromethane	mg/l	.05	0.0457	91.4	68-133	WG421672
Bromoform	mg/l	.05	0.0472	94.5	60-139	WG421672
Bromomethane	mg/l	.05	0.0611	122.	45-175	WG421672
Carbon disulfide	mg/l	.05	0.0375	75.0	41-148	WG421672
Carbon tetrachloride	mg/l	.05	0.0437	87.4	64-141	WG421672
Chlorobenzene	mg/l	.05	0.0468	93.7	77-125	WG421672
Chlorodibromomethane	mg/l	.05	0.0507	101.	73-138	WG421672
Chloroethane	mg/l	.05	0.0459	91.9	49-155	WG421672
Chloroform	mg/l	.05	0.0451	90.3	66-126	WG421672
Chloromethane	mg/l	.05	0.0448	89.7	45-152	WG421672
cis-1,2-Dichloroethene	mg/l	.05	0.0429	85.8	72-128	WG421672
cis-1,3-Dichloropropene	mg/l	.05	0.0452	90.4	73-131	WG421672
Di-isopropyl ether	mg/l	.05	0.0435	86.9	63-139	WG421672
Dibromomethane	mg/l	.05	0.0462	92.5	73-125	WG421672
Dichlorodifluoromethane	mg/l	.05	0.0544	109.	39-189	WG421672
Ethylbenzene	mg/l	.05	0.0443	88.5	76-129	WG421672
Hexachloro-1,3-butadiene	mg/l	.05	0.0434	86.7	67-135	WG421672
Iodomethane	mg/l	.25	0.277	111.	61-148	WG421672
Isopropylbenzene	mg/l	.05	0.0457	91.4	73-132	WG421672
Methyl tert-butyl ether	mg/l	.05	0.0486	97.1	51-142	WG421672
Methylene Chloride	mg/l	.05	0.0456	91.3	64-125	WG421672
n-Butylbenzene	mg/l	.05	0.0420	84.0	63-142	WG421672
n-Propylbenzene	mg/l	.05	0.0447	89.5	71-132	WG421672
Naphthalene	mg/l	.05	0.0511	102.	56-145	WG421672
p-Isopropyltoluene	mg/l	.05	0.0437	87.3	68-138	WG421672
sec-Butylbenzene	mg/l	.05	0.0454	90.8	70-135	WG421672
Styrene	mg/l	.05	0.0450	90.1	78-130	WG421672
tert-Butylbenzene	mg/l	.05	0.0467	93.3	72-134	WG421672
Tetrachloroethene	mg/l	.05	0.0442	88.3	67-135	WG421672
Tetrahydrofuran	mg/l	.05	0.0445	89.1	50-140	WG421672
Toluene	mg/l	.05	0.0435	86.9	72-122	WG421672
trans-1,2-Dichloroethene	mg/l	.05	0.0426	85.1	67-129	WG421672
trans-1,3-Dichloropropene	mg/l	.05	0.0456	91.3	66-137	WG421672
trans-1,4-Dichloro-2-butene	mg/l	.05	0.0480	96.0	48-139	WG421672
Trichloroethene	mg/l	.05	0.0448	89.5	74-126	WG421672
Trichlorofluoromethane	mg/l	.05	0.0544	109.	54-156	WG421672
Vinyl chloride	mg/l	.05	0.0452	90.3	55-153	WG421672
4-Bromofluorobenzene				106.8	75-128	WG421672
Dibromofluoromethane				105.4	79-125	WG421672
Toluene-d8				99.57	87-114	WG421672
1,4-Dioxane	mg/l	.05	0.0577	115.	70-130	WG421739
Toluene-d8				99.02	87-114	WG421739
Mercury	mg/l	.003	0.00287	95.7	85-115	WG421693

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Level II**

L402485

June 17, 2009

Analyte	Units	Laboratory Known Val	Control Sample Result	% Rec	Limit	Batch
Mercury	mg/l	.003	0.00306	102.	85-115	WG421694
1,4-Dioxane	mg/l	.05	0.0883	177.*	70-130	WG421799
cis-1,2-Dichloroethene	mg/l	.05	0.0433	86.6	72-128	WG421799
4-Bromofluorobenzene				106.4	75-128	WG421799
Dibromofluoromethane				105.0	79-125	WG421799
Toluene-d8				101.7	87-114	WG421799
Barium	mg/l	1.13	1.20	106.	85-115	WG422352
Cadmium	mg/l	1.13	1.20	106.	85-115	WG422352
Chromium	mg/l	1.13	1.16	103.	85-115	WG422352
Lead	mg/l	1.13	1.20	106.	85-115	WG422352
Manganese	mg/l	1.13	1.16	103.	85-115	WG422352
Nickel	mg/l	1.13	1.18	104.	85-115	WG422352
Selenium	mg/l	1.13	1.12	99.1	85-115	WG422352
Silver	mg/l	1.13	1.15	102.	85-115	WG422352
Barium	mg/l	1.13	1.11	98.2	85-115	WG422230
Cadmium	mg/l	1.13	1.10	97.3	85-115	WG422230
Chromium	mg/l	1.13	1.08	95.6	85-115	WG422230
Lead	mg/l	1.13	1.10	97.3	85-115	WG422230
Manganese	mg/l	1.13	1.09	96.5	85-115	WG422230
Nickel	mg/l	1.13	1.08	95.6	85-115	WG422230
Selenium	mg/l	1.13	1.02	90.3	85-115	WG422230
Silver	mg/l	1.13	1.08	95.6	85-115	WG422230
Barium	mg/l	1.13	1.05	92.9	85-115	WG422280
Cadmium	mg/l	1.13	1.03	91.2	85-115	WG422280
Chromium	mg/l	1.13	1.03	91.2	85-115	WG422280
Lead	mg/l	1.13	1.02	90.3	85-115	WG422280
Manganese	mg/l	1.13	1.06	93.8	85-115	WG422280
Nickel	mg/l	1.13	1.01	89.4	85-115	WG422280
Selenium	mg/l	1.13	0.968	85.7	85-115	WG422280
Silver	mg/l	1.13	1.03	91.2	85-115	WG422280
Arsenic	mg/l	.0567	0.0545	96.1	85-115	WG422231
Arsenic	mg/l	.0567	0.0551	97.2	85-115	WG422088

Analyte	Units	Laboratory Result	Control Ref	Sample %Rec	Duplicate	Limit	RPD	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0474	0.0500	95.0	75-134	5.45	20	WG421706	
1,1,1-Trichloroethane	mg/l	0.0456	0.0468	91.0	67-137	2.50	20	WG421706	
1,1,2,2-Tetrachloroethane	mg/l	0.0568	0.0599	114.	72-128	5.33	20	WG421706	
1,1,2-Trichloroethane	mg/l	0.0509	0.0523	102.	79-123	2.56	20	WG421706	
1,1-Dichloroethane	mg/l	0.0515	0.0526	103.	67-133	1.96	20	WG421706	
1,1-Dichloroethene	mg/l	0.0511	0.0543	102.	60-130	5.91	20	WG421706	
1,1-Dichloropropene	mg/l	0.0532	0.0527	106.	68-132	0.994	20	WG421706	
1,2,3-Trichlorobenzene	mg/l	0.0524	0.0555	105.	63-138	5.84	20	WG421706	
1,2,3-Trichloropropane	mg/l	0.0502	0.0525	100.	68-130	4.50	20	WG421706	
1,2,4-Trichlorobenzene	mg/l	0.0484	0.0522	97.0	65-137	7.57	20	WG421706	
1,2,4-Trimethylbenzene	mg/l	0.0437	0.0467	87.0	72-135	6.47	20	WG421706	

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Analyte	Units	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref				
1,2-Dibromo-3-Chloropropane	mg/l	0.0586	0.0583	117.	55-134	0.552	20
1,2-Dibromoethane	mg/l	0.0546	0.0555	109.	75-126	1.60	20
1,2-Dichlorobenzene	mg/l	0.0514	0.0534	103.	75-122	3.81	20
1,2-Dichloroethane	mg/l	0.0502	0.0496	100.	63-137	1.28	20
1,2-Dichloropropane	mg/l	0.0503	0.0513	101.	74-122	1.95	20
1,3,5-Trimethylbenzene	mg/l	0.0435	0.0458	87.0	73-134	5.23	20
1,3-Dichlorobenzene	mg/l	0.0464	0.0487	93.0	73-131	4.67	20
1,3-Dichloropropane	mg/l	0.0495	0.0512	99.0	77-119	3.42	20
1,4-Dichlorobenzene	mg/l	0.0473	0.0495	95.0	70-121	4.49	20
1,4-Dioxane	mg/l	0.00	0.00	0*	70-130	0.00	25
2,2-Dichloropropane	mg/l	0.0511	0.0518	102.	46-151	1.40	20
2-Butanone (MEK)	mg/l	0.286	0.290	114.	53-132	1.27	20
2-Chloroethyl vinyl ether	mg/l	0.0669	0.0673	27.0	0-171	0.654	27
2-Chlorotoluene	mg/l	0.0489	0.0522	98.0	74-128	6.50	20
2-Hexanone	mg/l	0.330	0.343	132.	56-147	3.95	20
4-Chlorotoluene	mg/l	0.0481	0.0502	96.0	74-130	4.21	20
4-Methyl-2-pentanone (MIBK)	mg/l	0.338	0.338	135.	60-142	0.0560	20
Acetone	mg/l	0.255	0.256	102.	48-134	0.118	20
Acrolein	mg/l	0.284	0.287	113.	6-182	1.04	39
Acrylonitrile	mg/l	0.307	0.305	123.	60-140	0.633	20
Benzene	mg/l	0.0539	0.0545	108.	67-126	1.16	20
Bromobenzene	mg/l	0.0465	0.0495	93.0	76-123	6.17	20
Bromochloromethane	mg/l	0.0554	0.0552	111.	75-128	0.378	20
Bromodichloromethane	mg/l	0.0477	0.0498	95.0	68-133	4.28	20
Bromoform	mg/l	0.0515	0.0540	103.	60-139	4.75	20
Bromomethane	mg/l	0.0507	0.0536	101.	45-175	5.69	20
Carbon disulfide	mg/l	0.0490	0.0524	98.0	41-148	6.72	20
Carbon tetrachloride	mg/l	0.0429	0.0444	86.0	64-141	3.35	20
Chlorobenzene	mg/l	0.0499	0.0521	100.	77-125	4.35	20
Chlorodibromomethane	mg/l	0.0499	0.0523	100.	73-138	4.61	20
Chloroethane	mg/l	0.0514	0.0534	103.	49-155	3.75	20
Chloroform	mg/l	0.0480	0.0480	96.0	66-126	0.0279	20
Chloromethane	mg/l	0.0502	0.0527	100.	45-152	4.96	20
cis-1,2-Dichloroethene	mg/l	0.0531	0.0537	106.	72-128	1.17	20
cis-1,3-Dichloropropene	mg/l	0.0536	0.0538	107.	73-131	0.479	20
Di-isopropyl ether	mg/l	0.0566	0.0575	113.	63-139	1.44	20
Dibromomethane	mg/l	0.0509	0.0510	102.	73-125	0.146	20
Dichlorodifluoromethane	mg/l	0.0455	0.0501	91.0	39-189	9.63	24
Ethylbenzene	mg/l	0.0490	0.0516	98.0	76-129	5.07	20
Hexachloro-1,3-butadiene	mg/l	0.0451	0.0473	90.0	67-135	4.78	20
Iodomethane	mg/l	0.228	0.234	91.0	61-148	2.56	20
Isopropylbenzene	mg/l	0.0484	0.0506	97.0	73-132	4.43	20
Methyl tert-butyl ether	mg/l	0.0574	0.0581	115.	51-142	1.14	20
Methylene Chloride	mg/l	0.0512	0.0503	102.	64-125	1.84	20
n-Butylbenzene	mg/l	0.0520	0.0539	104.	63-142	3.59	20
n-Propylbenzene	mg/l	0.0467	0.0494	93.0	71-132	5.52	20
Naphthalene	mg/l	0.0610	0.0618	122.	56-145	1.29	20
p-Isopropyltoluene	mg/l	0.0419	0.0454	84.0	68-138	7.92	20
sec-Butylbenzene	mg/l	0.0474	0.0505	95.0	70-135	6.34	20
Styrene	mg/l	0.0456	0.0470	91.0	78-130	3.10	20
tert-Butylbenzene	mg/l	0.0476	0.0507	95.0	72-134	6.29	20
Tetrachloroethene	mg/l	0.0409	0.0420	82.0	67-135	2.61	20
Tetrahydrofuran	mg/l	0.0585	0.0567	117.	50-140	3.19	20
Toluene	mg/l	0.0474	0.0488	95.0	72-122	3.00	20
trans-1,2-Dichloroethene	mg/l	0.0509	0.0506	102.	67-129	0.679	20
trans-1,3-Dichloropropene	mg/l	0.0521	0.0534	104.	66-137	2.31	20
trans-1,4-Dichloro-2-butene	mg/l	0.0489	0.0522	98.0	48-139	6.57	20
Trichloroethene	mg/l	0.0466	0.0489	93.0	74-126	4.80	20
Trichlorofluoromethane	mg/l	0.0509	0.0527	102.	54-156	3.55	20

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**ENVIRONMENTAL
SCIENCE CORP.**

Aquaterra Environmental Solutions, Inc.
Susan L. McCart
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

Quality Assurance Report
Level II

L402485

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 17, 2009

Analyte	Units	Laboratory Control Sample Duplicate		%Rec	Limit	RPD	Limit	Batch
		Result	Ref					
Vinyl chloride	mg/l	0.0458	0.0485	92.0	55-153	5.76	20	WG421706
4-Bromofluorobenzene				93.70	75-128			WG421706
Dibromofluoromethane				104.3	79-125			WG421706
Toluene-d8				102.0	87-114			WG421706
1,1,1,2-Tetrachloroethane	mg/l	0.0488	0.0455	98.0	75-134	6.94	20	WG421672
1,1,1-Trichloroethane	mg/l	0.0569	0.0479	114.	67-137	17.2	20	WG421672
1,1,2,2-Tetrachloroethane	mg/l	0.0505	0.0511	101.	72-128	1.19	20	WG421672
1,1,2-Trichloroethane	mg/l	0.0536	0.0517	107.	79-123	3.66	20	WG421672
1,1-Dichloroethane	mg/l	0.0513	0.0448	103.	67-133	13.5	20	WG421672
1,1-Dichloroethene	mg/l	0.0540	0.0455	108.	60-130	17.0	20	WG421672
1,1-Dichloropropene	mg/l	0.0530	0.0444	106.	68-132	17.7	20	WG421672
1,2,3-Trichlorobenzene	mg/l	0.0470	0.0457	94.0	63-138	2.80	20	WG421672
1,2,3-Trichloropropane	mg/l	0.0507	0.0513	101.	68-130	1.25	20	WG421672
1,2,4-Trichlorobenzene	mg/l	0.0466	0.0441	93.0	65-137	5.44	20	WG421672
1,2,4-Trimethylbenzene	mg/l	0.0487	0.0451	97.0	72-135	7.70	20	WG421672
1,2-Dibromo-3-Chloropropane	mg/l	0.0501	0.0537	100.	55-134	6.95	20	WG421672
1,2-Dibromoethane	mg/l	0.0525	0.0511	105.	75-126	2.73	20	WG421672
1,2-Dichlorobenzene	mg/l	0.0494	0.0456	99.0	75-122	7.85	20	WG421672
1,2-Dichloroethane	mg/l	0.0561	0.0513	112.	63-137	9.03	20	WG421672
1,2-Dichloropropane	mg/l	0.0461	0.0420	92.0	74-122	9.20	20	WG421672
1,3,5-Trimethylbenzene	mg/l	0.0497	0.0453	99.0	73-134	9.29	20	WG421672
1,3-Dichlorobenzene	mg/l	0.0478	0.0450	96.0	73-131	6.12	20	WG421672
1,3-Dichloropropane	mg/l	0.0501	0.0480	100.	77-119	4.26	20	WG421672
1,4-Dichlorobenzene	mg/l	0.0473	0.0436	95.0	70-121	8.26	20	WG421672
1,4-Dioxane	mg/l	0.0883	0.0811	177*	70-130	8.54	25	WG421672
2,2-Dichloropropane	mg/l	0.0525	0.0450	105.	46-151	15.5	20	WG421672
2-Butanone (MEK)	mg/l	0.235	0.223	94.0	53-132	5.17	20	WG421672
2-Chloroethyl vinyl ether	mg/l	0.244	0.237	98.0	0-171	3.04	27	WG421672
2-Chlorotoluene	mg/l	0.0499	0.0459	100.	74-128	8.44	20	WG421672
2-Hexanone	mg/l	0.239	0.246	96.0	56-147	3.12	20	WG421672
4-Chlorotoluene	mg/l	0.0488	0.0450	98.0	74-130	7.97	20	WG421672
4-Methyl-2-pentanone (MIBK)	mg/l	0.241	0.238	96.0	60-142	1.10	20	WG421672
Acetone	mg/l	0.240	0.232	96.0	48-134	3.51	20	WG421672
Acrolein	mg/l	0.255	0.231	102.	6-182	9.73	39	WG421672
Acrylonitrile	mg/l	0.246	0.237	98.0	60-140	3.43	20	WG421672
Benzene	mg/l	0.0488	0.0427	98.0	67-126	13.3	20	WG421672
Bromobenzene	mg/l	0.0509	0.0473	102.	76-123	7.21	20	WG421672
Bromochloromethane	mg/l	0.0567	0.0505	113.	75-128	11.5	20	WG421672
Bromodichloromethane	mg/l	0.0501	0.0457	100.	68-133	9.26	20	WG421672
Bromoform	mg/l	0.0480	0.0472	96.0	60-139	1.67	20	WG421672
Bromomethane	mg/l	0.0735	0.0611	147.	45-175	18.4	20	WG421672
Carbon disulfide	mg/l	0.0446	0.0375	89.0	41-148	17.2	20	WG421672
Carbon tetrachloride	mg/l	0.0519	0.0437	104.	64-141	17.1	20	WG421672
Chlorobenzene	mg/l	0.0513	0.0468	103.	77-125	9.06	20	WG421672
Chlorodibromomethane	mg/l	0.0530	0.0507	106.	73-138	4.53	20	WG421672
Chloroethane	mg/l	0.0503	0.0459	101.	49-155	9.02	20	WG421672
Chloroform	mg/l	0.0522	0.0451	104.	66-126	14.5	20	WG421672
Chloromethane	mg/l	0.0476	0.0448	95.0	45-152	6.02	20	WG421672
cis-1,2-Dichloroethene	mg/l	0.0496	0.0429	99.0	72-128	14.5	20	WG421672
cis-1,3-Dichloropropene	mg/l	0.0493	0.0452	99.0	73-131	8.58	20	WG421672
Di-isopropyl ether	mg/l	0.0484	0.0435	97.0	63-139	10.8	20	WG421672
Dibromomethane	mg/l	0.0487	0.0462	97.0	73-125	5.31	20	WG421672
Dichlorodifluoromethane	mg/l	0.0578	0.0544	116.	39-189	6.14	24	WG421672
Ethylbenzene	mg/l	0.0490	0.0443	98.0	76-129	10.1	20	WG421672
Hexachloro-1,3-butadiene	mg/l	0.0484	0.0434	97.0	67-135	10.9	20	WG421672
Iodomethane	mg/l	0.323	0.277	129.	61-148	15.2	20	WG421672
Isopropylbenzene	mg/l	0.0506	0.0457	101.	73-132	10.2	20	WG421672

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Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Methyl tert-butyl ether	mg/l	0.0515	0.0486	103.	51-142	5.94	20	WG421672
Methylene Chloride	mg/l	0.0503	0.0456	101.	64-125	9.81	20	WG421672
n-Butylbenzene	mg/l	0.0474	0.0420	95.0	63-142	12.0	20	WG421672
n-Propylbenzene	mg/l	0.0496	0.0447	99.0	71-132	10.3	20	WG421672
Naphthalene	mg/l	0.0510	0.0511	102.	56-145	0.244	20	WG421672
p-Isopropyltoluene	mg/l	0.0486	0.0437	97.0	68-138	10.8	20	WG421672
sec-Butylbenzene	mg/l	0.0492	0.0454	98.0	70-135	8.04	20	WG421672
Styrene	mg/l	0.0486	0.0450	97.0	78-130	7.71	20	WG421672
tert-Butylbenzene	mg/l	0.0516	0.0467	103.	72-134	10.0	20	WG421672
Tetrachloroethene	mg/l	0.0498	0.0442	100.	67-135	12.0	20	WG421672
Tetrahydrofuran	mg/l	0.0465	0.0445	93.0	50-140	4.26	20	WG421672
Toluene	mg/l	0.0492	0.0435	98.0	72-122	12.4	20	WG421672
trans-1,2-Dichloroethene	mg/l	0.0481	0.0426	96.0	67-129	12.1	20	WG421672
trans-1,3-Dichloropropene	mg/l	0.0494	0.0456	99.0	66-137	7.92	20	WG421672
trans-1,4-Dichloro-2-butene	mg/l	0.0474	0.0480	95.0	48-139	1.23	20	WG421672
Trichloroethene	mg/l	0.0515	0.0448	103.	74-126	13.9	20	WG421672
Trichlorofluoromethane	mg/l	0.0589	0.0544	118.	54-156	7.85	20	WG421672
Vinyl chloride	mg/l	0.0480	0.0452	96.0	55-153	6.10	20	WG421672
4-Bromofluorobenzene				104.1	75-128			WG421672
Dibromofluoromethane				107.6	79-125			WG421672
Toluene-d8				99.10	87-114			WG421672
1,4-Dioxane	mg/l	0.0557	0.0577	111.	70-130	3.54	25	WG421739
Toluene-d8				99.89	87-114			WG421739
1,4-Dioxane	mg/l	0.0889	0.0883	178*	70-130	0.751	25	WG421799
cis-1,2-Dichloroethene	mg/l	0.0471	0.0433	94.0	72-128	8.38	20	WG421799
4-Bromofluorobenzene				110.8	75-128			WG421799
Dibromofluoromethane				106.1	79-125			WG421799
Toluene-d8				100.2	87-114			WG421799

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
1,1,1,2-Tetrachloroethane	mg/l	0.0462	0.00	.05	92.5	45-152	L402501-01	WG421706
1,1,1-Trichloroethane	mg/l	0.0532	0.00	.05	106.	31-161	L402501-01	WG421706
1,1,2,2-Tetrachloroethane	mg/l	0.0517	0.00	.05	103.	49-149	L402501-01	WG421706
1,1,2-Trichloroethane	mg/l	0.0486	0.00	.05	97.2	46-145	L402501-01	WG421706
1,1-Dichloroethane	mg/l	0.0545	0.00	.05	109.	30-159	L402501-01	WG421706
1,1-Dichloroethene	mg/l	0.0617	0.00	.05	123.	10-162	L402501-01	WG421706
1,1-Dichloropropene	mg/l	0.0600	0.00	.05	120.	14-162	L402501-01	WG421706
1,2,3-Trichlorobenzene	mg/l	0.0549	0.00	.05	110.	32-143	L402501-01	WG421706
1,2,3-Trichloropropane	mg/l	0.0475	0.00	.05	95.1	48-148	L402501-01	WG421706
1,2,4-Trichlorobenzene	mg/l	0.0546	0.00	.05	109.	27-142	L402501-01	WG421706
1,2,4-Trimethylbenzene	mg/l	0.0472	0.00046	.05	93.5	29-153	L402501-01	WG421706
1,2-Dibromo-3-Chloropropane	mg/l	0.0586	0.00	.05	117.	37-148	L402501-01	WG421706
1,2-Dibromoethane	mg/l	0.0523	0.00	.05	105.	41-149	L402501-01	WG421706
1,2-Dichlorobenzene	mg/l	0.0514	0.00	.05	103.	40-139	L402501-01	WG421706
1,2-Dichloroethane	mg/l	0.0490	0.00	.05	98.0	29-167	L402501-01	WG421706
1,2-Dichloropropane	mg/l	0.0497	0.00	.05	99.4	39-148	L402501-01	WG421706
1,3,5-Trimethylbenzene	mg/l	0.0469	0.00	.05	93.8	33-149	L402501-01	WG421706
1,3-Dichlorobenzene	mg/l	0.0491	0.00	.05	98.1	32-148	L402501-01	WG421706
1,3-Dichloropropane	mg/l	0.0480	0.00	.05	96.0	44-142	L402501-01	WG421706
1,4-Dichlorobenzene	mg/l	0.0483	0.00	.05	96.6	32-136	L402501-01	WG421706
1,4-Dioxane	mg/l	0.00	0.00	.05	0.00	0-200	L402501-01	WG421706
2,2-Dichloropropane	mg/l	0.0614	0.00	.05	123.	14-158	L402501-01	WG421706
2-Butanone (MEK)	mg/l	0.303	0.00	.25	121.	32-151	L402501-01	WG421706

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Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
2-Chloroethyl vinyl ether	mg/l	0.0460	0.00	.25	18.4	0-175	L402501-01	WG421706
2-Chlorotoluene	mg/l	0.0515	0.00	.05	103.	35-147	L402501-01	WG421706
2-Hexanone	mg/l	0.321	0.00	.25	128.	41-155	L402501-01	WG421706
4-Chlorotoluene	mg/l	0.0506	0.00	.05	101.	33-147	L402501-01	WG421706
4-Methyl-2-pentanone (MIBK)	mg/l	0.322	0.00	.25	129.	40-160	L402501-01	WG421706
Acetone	mg/l	0.256	0.00973	.25	98.6	25-157	L402501-01	WG421706
Acrolein	mg/l	0.290	0.00	.25	116.	0-179	L402501-01	WG421706
Acrylonitrile	mg/l	0.325	0.00	.25	130.	37-162	L402501-01	WG421706
Benzene	mg/l	0.0647	0.00720	.05	115.	16-158	L402501-01	WG421706
Bromobenzene	mg/l	0.0462	0.00	.05	92.5	37-147	L402501-01	WG421706
Bromoform	mg/l	0.0553	0.00	.05	111.	36-154	L402501-01	WG421706
Bromodichloromethane	mg/l	0.0477	0.00	.05	95.5	45-147	L402501-01	WG421706
Bromoform	mg/l	0.0482	0.00	.05	96.4	38-152	L402501-01	WG421706
Bromomethane	mg/l	0.0506	0.00	.05	101.	0-191	L402501-01	WG421706
Carbon disulfide	mg/l	0.0579	0.00	.05	116.	10-166	L402501-01	WG421706
Carbon tetrachloride	mg/l	0.0504	0.00	.05	101.	22-168	L402501-01	WG421706
Chlorobenzene	mg/l	0.0503	0.00	.05	101.	33-148	L402501-01	WG421706
Chlorodibromomethane	mg/l	0.0491	0.00	.05	98.3	48-151	L402501-01	WG421706
Chloroethane	mg/l	0.0585	0.00	.05	117.	4-176	L402501-01	WG421706
Chloroform	mg/l	0.0493	0.00	.05	98.6	37-147	L402501-01	WG421706
Chloromethane	mg/l	0.0559	0.00	.05	112.	10-174	L402501-01	WG421706
cis-1,2-Dichloroethene	mg/l	0.0560	0.00	.05	112.	29-156	L402501-01	WG421706
cis-1,3-Dichloropropene	mg/l	0.0534	0.00	.05	107.	35-148	L402501-01	WG421706
Di-isopropyl ether	mg/l	0.0550	0.00	.05	110.	39-160	L402501-01	WG421706
Dibromomethane	mg/l	0.0499	0.00	.05	99.7	36-152	L402501-01	WG421706
Dichlorodifluoromethane	mg/l	0.0558	0.00	.05	112.	0-200	L402501-01	WG421706
Ethylbenzene	mg/l	0.0541	0.00	.05	108.	29-150	L402501-01	WG421706
Hexachloro-1,3-butadiene	mg/l	0.0524	0.00	.05	105.	28-144	L402501-01	WG421706
Iodomethane	mg/l	0.240	0.00	.25	96.0	9-169	L402501-01	WG421706
Isopropylbenzene	mg/l	0.0524	0.00	.05	105.	35-147	L402501-01	WG421706
Methyl tert-butyl ether	mg/l	0.0575	0.00	.05	115.	24-167	L402501-01	WG421706
Methylene Chloride	mg/l	0.0518	0.00	.05	104.	23-151	L402501-01	WG421706
n-Butylbenzene	mg/l	0.0617	0.00	.05	123.	22-151	L402501-01	WG421706
n-Propylbenzene	mg/l	0.0520	0.00	.05	104.	26-150	L402501-01	WG421706
Naphthalene	mg/l	0.0615	0.00	.05	123.	24-160	L402501-01	WG421706
p-Isopropyltoluene	mg/l	0.0484	0.00	.05	96.9	28-151	L402501-01	WG421706
sec-Butylbenzene	mg/l	0.0529	0.00	.05	106.	32-149	L402501-01	WG421706
Styrene	mg/l	0.0463	0.00111	.05	90.3	38-149	L402501-01	WG421706
tert-Butylbenzene	mg/l	0.0519	0.00	.05	104.	36-149	L402501-01	WG421706
Tetrachloroethene	mg/l	0.0472	0.00	.05	94.3	13-157	L402501-01	WG421706
Tetrahydrofuran	mg/l	0.0605	0.00	.05	121.	28-163	L402501-01	WG421706
Toluene	mg/l	0.0506	0.00	.05	101.	22-152	L402501-01	WG421706
trans-1,2-Dichloroethene	mg/l	0.0584	0.00	.05	117.	11-160	L402501-01	WG421706
trans-1,3-Dichloropropene	mg/l	0.0508	0.00	.05	102.	33-153	L402501-01	WG421706
trans-1,4-Dichloro-2-butene	mg/l	0.0484	0.00	.05	96.7	19-151	L402501-01	WG421706
Trichloroethene	mg/l	0.0519	0.00	.05	104.	18-163	L402501-01	WG421706
Trichlorofluoromethane	mg/l	0.0623	0.00	.05	125.	10-177	L402501-01	WG421706
Vinyl chloride	mg/l	0.0535	0.00	.05	107.	0-179	L402501-01	WG421706
4-Bromofluorobenzene					94.03	75-128		WG421706
Dibromofluoromethane					103.9	79-125		WG421706
Toluene-d8					98.66	87-114		WG421706
1,1,1,2-Tetrachloroethane	mg/l	0.0409	0.00	.05	81.9	45-152	L402485-12	WG421672
1,1,1-Trichloroethane	mg/l	0.0444	0.00	.05	88.8	31-161	L402485-12	WG421672
1,1,2,2-Tetrachloroethane	mg/l	0.0445	0.00	.05	89.0	49-149	L402485-12	WG421672
1,1,2-Trichloroethane	mg/l	0.0454	0.00	.05	90.8	46-145	L402485-12	WG421672
1,1-Dichloroethane	mg/l	0.115	0.0840	.05	61.7	30-159	L402485-12	WG421672
1,1-Dichloroethene	mg/l	0.0445	0.00820	.05	72.6	10-162	L402485-12	WG421672

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1,1-Dichloropropene	mg/l	0.0375	0.00	.05	74.9	14-162	L402485-12	WG421672
1,2,3-Trichlorobenzene	mg/l	0.0421	0.00	.05	84.2	32-143	L402485-12	WG421672
1,2,3-Trichloropropane	mg/l	0.0436	0.00	.05	87.2	48-148	L402485-12	WG421672
1,2,4-Trichlorobenzene	mg/l	0.0411	0.00	.05	82.3	27-142	L402485-12	WG421672
1,2,4-Trimethylbenzene	mg/l	0.0392	0.00	.05	78.4	29-153	L402485-12	WG421672
1,2-Dibromo-3-Chloropropane	mg/l	0.0457	0.00	.05	91.4	37-148	L402485-12	WG421672
1,2-Dibromoethane	mg/l	0.0427	0.00	.05	85.3	41-149	L402485-12	WG421672
1,2-Dichlorobenzene	mg/l	0.0425	0.00	.05	85.1	40-139	L402485-12	WG421672
1,2-Dichloroethane	mg/l	0.0454	0.00	.05	90.9	29-167	L402485-12	WG421672
1,2-Dichloropropane	mg/l	0.0384	0.00	.05	76.9	39-148	L402485-12	WG421672
1,3,5-Trimethylbenzene	mg/l	0.0394	0.00	.05	78.8	33-149	L402485-12	WG421672
1,3-Dichlorobenzene	mg/l	0.0402	0.00	.05	80.3	32-148	L402485-12	WG421672
1,3-Dichloropropane	mg/l	0.0415	0.00	.05	83.1	44-142	L402485-12	WG421672
1,4-Dichlorobenzene	mg/l	0.0401	0.00	.05	80.2	32-136	L402485-12	WG421672
1,4-Dioxane	mg/l	2.53	2.40	.05	265.*	0-200	L402485-12	WG421672
2,2-Dichloropropane	mg/l	0.0405	0.00	.05	80.9	14-158	L402485-12	WG421672
2-Butanone (MEK)	mg/l	0.167	0.00	.25	66.8	32-151	L402485-12	WG421672
2-Chloroethyl vinyl ether	mg/l	0.00043	0.00	.25	0.173	0-175	L402485-12	WG421672
2-Chlorotoluene	mg/l	0.0405	0.00	.05	81.0	35-147	L402485-12	WG421672
2-Hexanone	mg/l	0.207	0.00	.25	82.8	41-155	L402485-12	WG421672
4-Chlorotoluene	mg/l	0.0395	0.00	.05	78.9	33-147	L402485-12	WG421672
4-Methyl-2-pentanone (MIBK)	mg/l	0.211	0.00	.25	84.5	40-160	L402485-12	WG421672
Acetone	mg/l	0.222	0.00	.25	88.7	25-157	L402485-12	WG421672
Acrolein	mg/l	0.172	0.00	.25	68.6	0-179	L402485-12	WG421672
Acrylonitrile	mg/l	0.213	0.00	.25	85.3	37-162	L402485-12	WG421672
Benzene	mg/l	0.0388	0.00200	.05	73.6	16-158	L402485-12	WG421672
Bromobenzene	mg/l	0.0416	0.00	.05	83.2	37-147	L402485-12	WG421672
Bromochloromethane	mg/l	0.0429	0.00	.05	85.8	36-154	L402485-12	WG421672
Bromodichloromethane	mg/l	0.0423	0.00	.05	84.5	45-147	L402485-12	WG421672
Bromoform	mg/l	0.0415	0.00	.05	83.0	38-152	L402485-12	WG421672
Bromomethane	mg/l	0.0458	0.00	.05	91.5	0-191	L402485-12	WG421672
Carbon disulfide	mg/l	0.0261	0.00	.05	52.3	10-166	L402485-12	WG421672
Carbon tetrachloride	mg/l	0.0390	0.00	.05	78.0	22-168	L402485-12	WG421672
Chlorobenzene	mg/l	0.0415	0.00	.05	82.9	33-148	L402485-12	WG421672
Chlorodibromomethane	mg/l	0.0446	0.00	.05	89.2	48-151	L402485-12	WG421672
Chloroethane	mg/l	0.0366	0.00	.05	73.1	4-176	L402485-12	WG421672
Chloroform	mg/l	0.0409	0.00	.05	81.8	37-147	L402485-12	WG421672
Chloromethane	mg/l	0.0302	0.00	.05	60.5	10-174	L402485-12	WG421672
cis-1,2-Dichloroethene	mg/l	0.298	0.280	.05	36.6	29-156	L402485-12	WG421672
cis-1,3-Dichloropropene	mg/l	0.0409	0.00	.05	81.9	35-148	L402485-12	WG421672
Di-isopropyl ether	mg/l	0.0418	0.00	.05	83.6	39-160	L402485-12	WG421672
Dibromomethane	mg/l	0.0401	0.00	.05	80.2	36-152	L402485-12	WG421672
Dichlorodifluoromethane	mg/l	0.0317	0.00	.05	63.3	0-200	L402485-12	WG421672
Ethylbenzene	mg/l	0.0387	0.00	.05	77.3	29-150	L402485-12	WG421672
Hexachloro-1,3-butadiene	mg/l	0.0415	0.00	.05	83.0	28-144	L402485-12	WG421672
Iodomethane	mg/l	0.230	0.00	.25	92.2	9-169	L402485-12	WG421672
Isopropylbenzene	mg/l	0.0403	0.00	.05	80.6	35-147	L402485-12	WG421672
Methyl tert-butyl ether	mg/l	0.0829	0.0410	.05	83.7	24-167	L402485-12	WG421672
Methylene Chloride	mg/l	0.0397	0.00	.05	79.4	23-151	L402485-12	WG421672
n-Butylbenzene	mg/l	0.0393	0.00	.05	78.6	22-151	L402485-12	WG421672
n-Propylbenzene	mg/l	0.0389	0.00	.05	77.9	26-150	L402485-12	WG421672
Naphthalene	mg/l	0.0449	0.00	.05	89.9	24-160	L402485-12	WG421672
p-Isopropyltoluene	mg/l	0.0388	0.00	.05	77.5	28-151	L402485-12	WG421672
sec-Butylbenzene	mg/l	0.0400	0.00	.05	80.1	32-149	L402485-12	WG421672
Styrene	mg/l	0.0396	0.00	.05	79.2	38-149	L402485-12	WG421672
tert-Butylbenzene	mg/l	0.0417	0.00	.05	83.3	36-149	L402485-12	WG421672
Tetrachloroethene	mg/l	0.0358	0.00	.05	71.6	13-157	L402485-12	WG421672
Tetrahydrofuran	mg/l	0.0708	0.0320	.05	77.7	28-163	L402485-12	WG421672
Toluene	mg/l	0.0380	0.00	.05	76.0	22-152	L402485-12	WG421672

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Level II**

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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 17, 2009

L402485

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
trans-1,2-Dichloroethene	mg/l	0.0343	0.00100	.05	66.7	11-160	L402485-12	WG421672
trans-1,3-Dichloropropene	mg/l	0.0405	0.00	.05	80.9	33-153	L402485-12	WG421672
trans-1,4-Dichloro-2-butene	mg/l	0.0404	0.00	.05	80.9	19-151	L402485-12	WG421672
Trichloroethene	mg/l	0.0390	0.00	.05	77.9	18-163	L402485-12	WG421672
Trichlorofluoromethane	mg/l	0.0419	0.00	.05	83.8	10-177	L402485-12	WG421672
Vinyl chloride	mg/l	0.0745	0.0480	.05	53.0	0-179	L402485-12	WG421672
4-Bromofluorobenzene					101.8	75-128		WG421672
Dibromofluoromethane					99.65	79-125		WG421672
Toluene-d8					99.65	87-114		WG421672
1,4-Dioxane	mg/l	0.0646	0.00880	.05	112.	0-200	L402485-24	WG421739
Toluene-d8					100.1	87-114		WG421739
Mercury	mg/l	0.00269	0.00	.003	89.7	70-130	L402316-01	WG421693
Mercury	mg/l	0.00235	0.00	.003	78.3	70-130	L402485-12	WG421694
1,4-Dioxane	mg/l	0.426	0.450	.05	0.00*	0-200	L402539-02	WG421799
cis-1,2-Dichloroethene	mg/l	0.0336	0.00	.05	67.2	29-156	L402539-02	WG421799
4-Bromofluorobenzene					125.3	75-128		WG421799
Dibromofluoromethane					107.7	79-125		WG421799
Toluene-d8					98.22	87-114		WG421799
Barium	mg/l	1.14	0.00	1.13	101.	75-125	L402485-23	WG422352
Cadmium	mg/l	1.15	0.00	1.13	102.	75-125	L402485-23	WG422352
Chromium	mg/l	1.09	0.00	1.13	96.5	75-125	L402485-23	WG422352
Manganese	mg/l	1.14	0.00	1.13	101.	75-125	L402485-23	WG422352
Nickel	mg/l	1.11	0.00	1.13	98.2	75-125	L402485-23	WG422352
Selenium	mg/l	1.05	0.00	1.13	92.9	75-125	L402485-23	WG422352
Silver	mg/l	1.10	0.00	1.13	97.3	75-125	L402485-23	WG422352
Barium	mg/l	1.16	0.0833	1.13	95.3	75-125	L402459-16	WG422230
Cadmium	mg/l	1.05	0.00	1.13	92.9	75-125	L402459-16	WG422230
Chromium	mg/l	1.06	0.00190	1.13	93.6	75-125	L402459-16	WG422230
Lead	mg/l	1.04	0.00	1.13	92.0	75-125	L402459-16	WG422230
Manganese	mg/l	1.59	0.500	1.13	96.5	75-125	L402459-16	WG422230
Nickel	mg/l	1.06	0.00	1.13	93.8	75-125	L402459-16	WG422230
Selenium	mg/l	1.04	0.00240	1.13	91.8	75-125	L402459-16	WG422230
Silver	mg/l	0.483	0.00350	1.13	42.4*	75-125	L402459-16	WG422230
Barium	mg/l	1.67	0.580	1.13	96.5	75-125	L402485-12	WG422280
Cadmium	mg/l	1.12	0.00	1.13	99.1	75-125	L402485-12	WG422280
Chromium	mg/l	1.08	0.00	1.13	95.6	75-125	L402485-12	WG422280
Lead	mg/l	1.10	0.00	1.13	97.3	75-125	L402485-12	WG422280
Manganese	mg/l	1.94	0.850	1.13	96.5	75-125	L402485-12	WG422280
Nickel	mg/l	1.16	0.0760	1.13	95.9	75-125	L402485-12	WG422280
Selenium	mg/l	1.08	0.00	1.13	95.6	75-125	L402485-12	WG422280
Silver	mg/l	0.00190	0.00	1.13	0.168*	75-125	L402485-12	WG422280
Arsenic	mg/l	0.372	0.00	.00567	656.*	75-125	L402611-01	WG422231

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Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch	
		MS Res	Ref Res	TV					
Lead	mg/l	1.07	0.00	1.13	94.7	75-125	L402485-23	WG422352	
Arsenic	mg/l	0.136	0.0600	.0567	134.*	75-125	L402485-12	WG422088	
Matrix Spike Duplicate									
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0479	0.0462	95.7	45-152	3.44	21	L402501-01	WG421706
1,1,1-Trichloroethane	mg/l	0.0508	0.0532	102.	31-161	4.61	23	L402501-01	WG421706
1,1,2,2-Tetrachloroethane	mg/l	0.0559	0.0517	112.	49-149	7.72	22	L402501-01	WG421706
1,1,2-Trichloroethane	mg/l	0.0507	0.0486	101.	46-145	4.18	20	L402501-01	WG421706
1,1-Dichloroethane	mg/l	0.0527	0.0545	105.	30-159	3.29	21	L402501-01	WG421706
1,1-Dichloroethene	mg/l	0.0581	0.0617	116.	10-162	6.01	23	L402501-01	WG421706
1,1-Dichloropropene	mg/l	0.0576	0.0600	115.	14-162	4.13	23	L402501-01	WG421706
1,2,3-Trichlorobenzene	mg/l	0.0545	0.0549	109.	32-143	0.651	33	L402501-01	WG421706
1,2,3-Trichloropropane	mg/l	0.0528	0.0475	106.	48-148	10.4	23	L402501-01	WG421706
1,2,4-Trichlorobenzene	mg/l	0.0545	0.0546	109.	27-142	0.148	30	L402501-01	WG421706
1,2,4-Trimethylbenzene	mg/l	0.0481	0.0472	95.2	29-153	1.77	27	L402501-01	WG421706
1,2-Dibromo-3-Chloropropane	mg/l	0.0613	0.0586	123.	37-148	4.58	27	L402501-01	WG421706
1,2-Dibromoethane	mg/l	0.0571	0.0523	114.	41-149	8.60	21	L402501-01	WG421706
1,2-Dichlorobenzene	mg/l	0.0525	0.0514	105.	40-139	2.07	23	L402501-01	WG421706
1,2-Dichloroethane	mg/l	0.0482	0.0490	96.3	29-167	1.72	21	L402501-01	WG421706
1,2-Dichloropropane	mg/l	0.0513	0.0497	103.	39-148	3.11	20	L402501-01	WG421706
1,3,5-Trimethylbenzene	mg/l	0.0476	0.0469	95.2	33-149	1.44	26	L402501-01	WG421706
1,3-Dichlorobenzene	mg/l	0.0497	0.0491	99.3	32-148	1.20	24	L402501-01	WG421706
1,3-Dichloropropane	mg/l	0.0499	0.0480	99.8	44-142	3.94	20	L402501-01	WG421706
1,4-Dichlorobenzene	mg/l	0.0499	0.0483	99.8	32-136	3.30	23	L402501-01	WG421706
1,4-Dioxane	mg/l	0.00	0.00	0.00	0-200	0.00	42	L402501-01	WG421706
2,2-Dichloropropane	mg/l	0.0588	0.0614	118.	14-158	4.38	23	L402501-01	WG421706
2-Butanone (MEK)	mg/l	0.295	0.303	118.	32-151	2.73	26	L402501-01	WG421706
2-Chloroethyl vinyl ether	mg/l	0.0294	0.0460	11.8	0-175	44.1	75	L402501-01	WG421706
2-Chlorotoluene	mg/l	0.0524	0.0515	105.	35-147	1.82	24	L402501-01	WG421706
2-Hexanone	mg/l	0.340	0.321	136.	41-155	5.79	28	L402501-01	WG421706
4-Chlorotoluene	mg/l	0.0526	0.0506	105.	33-147	3.80	25	L402501-01	WG421706
4-Methyl-2-pentanone (MIBK)	mg/l	0.334	0.322	134.	40-160	3.66	28	L402501-01	WG421706
Acetone	mg/l	0.259	0.256	99.8	25-157	1.16	26	L402501-01	WG421706
Acrolein	mg/l	0.294	0.290	118.	0-179	1.24	39	L402501-01	WG421706
Acrylonitrile	mg/l	0.321	0.325	128.	37-162	1.29	24	L402501-01	WG421706
Benzene	mg/l	0.0621	0.0647	110.	16-158	4.22	21	L402501-01	WG421706
Bromobenzene	mg/l	0.0477	0.0462	95.3	37-147	3.01	23	L402501-01	WG421706
Bromochloromethane	mg/l	0.0554	0.0553	111.	36-154	0.219	21	L402501-01	WG421706
Bromodichloromethane	mg/l	0.0482	0.0477	96.4	45-147	0.967	20	L402501-01	WG421706
Bromoform	mg/l	0.0531	0.0482	106.	38-152	9.63	20	L402501-01	WG421706
Bromomethane	mg/l	0.0479	0.0506	95.7	0-191	5.53	35	L402501-01	WG421706
Carbon disulfide	mg/l	0.0549	0.0579	110.	10-166	5.30	25	L402501-01	WG421706
Carbon tetrachloride	mg/l	0.0478	0.0504	95.6	22-168	5.35	24	L402501-01	WG421706
Chlorobenzene	mg/l	0.0525	0.0503	105.	33-148	4.28	22	L402501-01	WG421706
Chlorodibromomethane	mg/l	0.0493	0.0491	98.7	48-151	0.405	21	L402501-01	WG421706
Chloroethane	mg/l	0.0556	0.0585	111.	4-176	5.11	27	L402501-01	WG421706
Chloroform	mg/l	0.0478	0.0493	95.5	37-147	3.17	21	L402501-01	WG421706
Chloromethane	mg/l	0.0526	0.0559	105.	10-174	6.13	28	L402501-01	WG421706
cis-1,2-Dichloroethene	mg/l	0.0547	0.0560	109.	29-156	2.22	22	L402501-01	WG421706
cis-1,3-Dichloropropene	mg/l	0.0529	0.0534	106.	35-148	0.901	21	L402501-01	WG421706
Di-isopropyl ether	mg/l	0.0541	0.0550	108.	39-160	1.52	21	L402501-01	WG421706
Dibromomethane	mg/l	0.0508	0.0499	102.	36-152	1.86	20	L402501-01	WG421706
Dichlorodifluoromethane	mg/l	0.0562	0.0558	112.	0-200	0.772	26	L402501-01	WG421706
Ethylbenzene	mg/l	0.0551	0.0541	110.	29-150	1.92	24	L402501-01	WG421706

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Analyte	Units	MSD	Matrix Spike Duplicate			Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec							
Hexachloro-1,3-butadiene	mg/l	0.0512	0.0524	102.	28-144	2.21	33	L402501-01			WG421706
Iodomethane	mg/l	0.234	0.240	93.5	9-169	2.69	27	L402501-01			WG421706
Isopropylbenzene	mg/l	0.0541	0.0524	108.	35-147	3.28	25	L402501-01			WG421706
Methyl tert-butyl ether	mg/l	0.0572	0.0575	114.	24-167	0.648	22	L402501-01			WG421706
Methylene Chloride	mg/l	0.0503	0.0518	101.	23-151	3.07	21	L402501-01			WG421706
n-Butylbenzene	mg/l	0.0612	0.0617	122.	22-151	0.778	29	L402501-01			WG421706
n-Propylbenzene	mg/l	0.0532	0.0520	106.	26-150	2.26	25	L402501-01			WG421706
Naphthalene	mg/l	0.0624	0.0615	125.	24-160	1.57	37	L402501-01			WG421706
p-Isopropyltoluene	mg/l	0.0485	0.0484	96.9	28-151	0.063	27	L402501-01			WG421706
sec-Butylbenzene	mg/l	0.0536	0.0529	107.	32-149	1.26	26	L402501-01			WG421706
Styrene	mg/l	0.0476	0.0463	92.9	38-149	2.72	23	L402501-01			WG421706
tert-Butylbenzene	mg/l	0.0525	0.0519	105.	36-149	1.19	26	L402501-01			WG421706
Tetrachloroethene	mg/l	0.0483	0.0472	96.7	13-157	2.45	24	L402501-01			WG421706
Tetrahydrofuran	mg/l	0.0561	0.0605	112.	28-163	7.58	27	L402501-01			WG421706
Toluene	mg/l	0.0502	0.0506	100.	22-152	0.788	22	L402501-01			WG421706
trans-1,2-Dichloroethene	mg/l	0.0550	0.0584	110.	11-160	6.02	23	L402501-01			WG421706
trans-1,3-Dichloropropene	mg/l	0.0529	0.0508	106.	33-153	4.11	22	L402501-01			WG421706
trans-1,4-Dichloro-2-butene	mg/l	0.0498	0.0484	99.6	19-151	2.87	29	L402501-01			WG421706
Trichloroethene	mg/l	0.0502	0.0519	100.	18-163	3.36	21	L402501-01			WG421706
Trichlorofluoromethane	mg/l	0.0577	0.0623	115.	10-177	7.79	24	L402501-01			WG421706
Vinyl chloride	mg/l	0.0491	0.0535	98.1	0-179	8.70	26	L402501-01			WG421706
4-Bromofluorobenzene				92.64	75-128						WG421706
Dibromofluoromethane				102.5	79-125						WG421706
Toluene-d8				101.4	87-114						WG421706
1,1,1,2-Tetrachloroethane	mg/l	0.0443	0.0409	88.5	45-152	7.79	21	L402485-12			WG421672
1,1,1-Trichloroethane	mg/l	0.0482	0.0444	96.4	31-161	8.14	23	L402485-12			WG421672
1,1,2,2-Tetrachloroethane	mg/l	0.0479	0.0445	95.8	49-149	7.31	22	L402485-12			WG421672
1,1,2-Trichloroethane	mg/l	0.0494	0.0454	98.9	46-145	8.55	20	L402485-12			WG421672
1,1-Dichloroethane	mg/l	0.121	0.115	73.9	30-159	5.20	21	L402485-12			WG421672
1,1-Dichloroethene	mg/l	0.0483	0.0445	80.3	10-162	8.35	23	L402485-12			WG421672
1,1-Dichloropropene	mg/l	0.0411	0.0375	82.3	14-162	9.34	23	L402485-12			WG421672
1,2,3-Trichlorobenzene	mg/l	0.0444	0.0421	88.7	32-143	5.30	33	L402485-12			WG421672
1,2,3-Trichloropropane	mg/l	0.0474	0.0436	94.9	48-148	8.37	23	L402485-12			WG421672
1,2,4-Trichlorobenzene	mg/l	0.0446	0.0411	89.2	27-142	8.11	30	L402485-12			WG421672
1,2,4-Trimethylbenzene	mg/l	0.0424	0.0392	84.8	29-153	7.84	27	L402485-12			WG421672
1,2-Dibromo-3-Chloropropane	mg/l	0.0487	0.0457	97.3	37-148	6.32	27	L402485-12			WG421672
1,2-Dibromoethane	mg/l	0.0451	0.0427	90.3	41-149	5.62	21	L402485-12			WG421672
1,2-Dichlorobenzene	mg/l	0.0456	0.0425	91.2	40-139	6.92	23	L402485-12			WG421672
1,2-Dichloroethane	mg/l	0.0490	0.0454	98.0	29-167	7.53	21	L402485-12			WG421672
1,2-Dichloropropane	mg/l	0.0405	0.0384	81.1	39-148	5.34	20	L402485-12			WG421672
1,3,5-Trimethylbenzene	mg/l	0.0425	0.0394	85.0	33-149	7.56	26	L402485-12			WG421672
1,3-Dichlorobenzene	mg/l	0.0433	0.0402	86.6	32-148	7.49	24	L402485-12			WG421672
1,3-Dichloropropene	mg/l	0.0445	0.0415	89.0	44-142	6.89	20	L402485-12			WG421672
1,4-Dichlorobenzene	mg/l	0.0430	0.0401	86.0	32-136	7.00	23	L402485-12			WG421672
1,4-Dioxane	mg/l	2.55	2.53	293.692*	0-200	0.569	42	L402485-12			WG421672
2,2-Dichloropropane	mg/l	0.0438	0.0405	87.6	14-158	7.93	23	L402485-12			WG421672
2-Butanone (MEK)	mg/l	0.180	0.167	71.8	32-151	7.33	26	L402485-12			WG421672
2-Chloroethyl vinyl ether	mg/l	0.00	0.0004	0.00	0-175	200.*	75	L402485-12			WG421672
2-Chlorotoluene	mg/l	0.0437	0.0405	87.4	35-147	7.56	24	L402485-12			WG421672
2-Hexanone	mg/l	0.220	0.207	88.0	41-155	6.05	28	L402485-12			WG421672
4-Chlorotoluene	mg/l	0.0420	0.0395	84.0	33-147	6.23	25	L402485-12			WG421672
4-Methyl-2-pentanone (MIBK)	mg/l	0.226	0.211	90.2	40-160	6.54	28	L402485-12			WG421672
Acetone	mg/l	0.238	0.222	95.3	25-157	7.17	26	L402485-12			WG421672
Acrolein	mg/l	0.189	0.172	75.5	0-179	9.45	39	L402485-12			WG421672
Acrylonitrile	mg/l	0.226	0.213	90.6	37-162	6.03	24	L402485-12			WG421672
Benzene	mg/l	0.0424	0.0388	80.9	16-158	8.99	21	L402485-12			WG421672
Bromobenzene	mg/l	0.0439	0.0416	87.8	37-147	5.40	23	L402485-12			WG421672

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Quality Assurance Report
Level II

L402485

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 17, 2009

Analyte	Units	MSD	Matrix Spike Duplicate			Limit	RPD	Limit Ref Samp			Batch
			Ref	%Rec				Limit	Ref	Samp	
Bromochloromethane	mg/l	0.0463	0.0429	92.5		36-154	7.51	21	L402485-12		WG421672
Bromodichloromethane	mg/l	0.0458	0.0423	91.6		45-147	8.04	20	L402485-12		WG421672
Bromoform	mg/l	0.0447	0.0415	89.4		38-152	7.42	20	L402485-12		WG421672
Bromomethane	mg/l	0.0478	0.0458	95.5		0-191	4.25	35	L402485-12		WG421672
Carbon disulfide	mg/l	0.0288	0.0261	57.6		10-166	9.62	25	L402485-12		WG421672
Carbon tetrachloride	mg/l	0.0429	0.0390	85.8		22-168	9.51	24	L402485-12		WG421672
Chlorobenzene	mg/l	0.0439	0.0415	87.8		33-148	5.77	22	L402485-12		WG421672
Chlorodibromomethane	mg/l	0.0479	0.0446	95.7		48-151	7.08	21	L402485-12		WG421672
Chloroethane	mg/l	0.0408	0.0366	81.6		4-176	10.9	27	L402485-12		WG421672
Chloroform	mg/l	0.0454	0.0409	90.9		37-147	10.5	21	L402485-12		WG421672
Chloromethane	mg/l	0.0338	0.0302	67.7		10-174	11.2	28	L402485-12		WG421672
cis-1,2-Dichloroethene	mg/l	0.312	0.298	63.4		29-156	4.40	22	L402485-12		WG421672
cis-1,3-Dichloropropene	mg/l	0.0441	0.0409	88.3		35-148	7.52	21	L402485-12		WG421672
Di-isopropyl ether	mg/l	0.0441	0.0418	88.2		39-160	5.39	21	L402485-12		WG421672
Dibromomethane	mg/l	0.0434	0.0401	86.8		36-152	7.90	20	L402485-12		WG421672
Dichlorodifluoromethane	mg/l	0.0351	0.0317	70.3		0-200	10.4	26	L402485-12		WG421672
Ethylbenzene	mg/l	0.0409	0.0387	81.9		29-150	5.73	24	L402485-12		WG421672
Hexachloro-1,3-butadiene	mg/l	0.0445	0.0415	89.1		28-144	7.09	33	L402485-12		WG421672
Iodomethane	mg/l	0.256	0.230	102.		9-169	10.4	27	L402485-12		WG421672
Isopropylbenzene	mg/l	0.0430	0.0403	86.0		35-147	6.49	25	L402485-12		WG421672
Methyl tert-butyl ether	mg/l	0.0873	0.0829	92.6		24-167	5.24	22	L402485-12		WG421672
Methylene Chloride	mg/l	0.0429	0.0397	85.9		23-151	7.80	21	L402485-12		WG421672
n-Butylbenzene	mg/l	0.0432	0.0393	86.5		22-151	9.48	29	L402485-12		WG421672
n-Propylbenzene	mg/l	0.0418	0.0389	83.6		26-150	7.09	25	L402485-12		WG421672
Naphthalene	mg/l	0.0479	0.0449	95.8		24-160	6.46	37	L402485-12		WG421672
p-Isopropyltoluene	mg/l	0.0422	0.0388	84.5		28-151	8.62	27	L402485-12		WG421672
sec-Butylbenzene	mg/l	0.0430	0.0400	86.1		32-149	7.26	26	L402485-12		WG421672
Styrene	mg/l	0.0419	0.0396	83.8		38-149	5.65	23	L402485-12		WG421672
tert-Butylbenzene	mg/l	0.0452	0.0417	90.3		36-149	8.05	26	L402485-12		WG421672
Tetrachloroethene	mg/l	0.0390	0.0358	77.9		13-157	8.43	24	L402485-12		WG421672
Tetrahydrofuran	mg/l	0.0964	0.0708	129.		28-163	30.6*	27	L402485-12		WG421672
Toluene	mg/l	0.0408	0.0380	81.6		22-152	7.11	22	L402485-12		WG421672
trans-1,2-Dichloroethene	mg/l	0.0374	0.0343	72.7		11-160	8.44	23	L402485-12		WG421672
trans-1,3-Dichloropropene	mg/l	0.0434	0.0405	86.9		33-153	7.07	22	L402485-12		WG421672
trans-1,4-Dichloro-2-butene	mg/l	0.0447	0.0404	89.5		19-151	10.1	29	L402485-12		WG421672
Trichloroethene	mg/l	0.0416	0.0390	83.1		18-163	6.47	21	L402485-12		WG421672
Trichlorofluoromethane	mg/l	0.0465	0.0419	93.1		10-177	10.5	24	L402485-12		WG421672
Vinyl chloride	mg/l	0.0805	0.0745	65.0		0-179	7.73	26	L402485-12		WG421672
4-Bromofluorobenzene				101.3		75-128					WG421672
Dibromofluoromethane				107.2		79-125					WG421672
Toluene-d8				99.39		87-114					WG421672
1,4-Dioxane	mg/l	0.0693	0.0646	121.		0-200	6.90	42	L402485-24		WG421739
Toluene-d8				99.32		87-114					WG421739
Mercury	mg/l	0.0029	0.0026	96.7		70-130	7.51	20	L402316-01		WG421693
Mercury	mg/l	0.0022	0.0023	74.0		70-130	5.69	20	L402485-12		WG421694
1,4-Dioxane	mg/l	0.430	0.426	0.00		0-200	0.996	42	L402539-02		WG421799
cis-1,2-Dichloroethene	mg/l	0.0342	0.0336	68.3		29-156	1.57	22	L402539-02		WG421799
4-Bromofluorobenzene				129.1*		75-128					WG421799
Dibromofluoromethane				110.8		79-125					WG421799
Toluene-d8				95.29		87-114					WG421799

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**ENVIRONMENTAL
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Aquaterra Environmental Solutions, Inc.
Susan L. McCart
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**Quality Assurance Report
Level II**

L402485

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

June 17, 2009

Analyte	Units	MSD	Matrix Spike Duplicate			Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec							
Barium	mg/l	1.20	1.14	106.	75-125	5.13	20	L402485-23			WG422352
Cadmium	mg/l	1.21	1.15	107.	75-125	5.08	20	L402485-23			WG422352
Chromium	mg/l	1.16	1.09	103.	75-125	6.22	20	L402485-23			WG422352
Manganese	mg/l	1.17	1.14	104.	75-125	2.60	20	L402485-23			WG422352
Nickel	mg/l	1.17	1.11	104.	75-125	5.26	20	L402485-23			WG422352
Selenium	mg/l	1.12	1.05	99.1	75-125	6.45	20	L402485-23			WG422352
Silver	mg/l	1.15	1.10	102.	75-125	4.44	20	L402485-23			WG422352
Barium	mg/l	1.18	1.16	97.1	75-125	1.71	20	L402459-16			WG422230
Cadmium	mg/l	1.07	1.05	94.7	75-125	1.89	20	L402459-16			WG422230
Chromium	mg/l	1.09	1.06	96.3	75-125	2.79	20	L402459-16			WG422230
Lead	mg/l	1.03	1.04	91.2	75-125	0.966	20	L402459-16			WG422230
Manganese	mg/l	1.58	1.59	95.6	75-125	0.631	20	L402459-16			WG422230
Nickel	mg/l	1.06	1.06	93.8	75-125	0.00	20	L402459-16			WG422230
Selenium	mg/l	1.03	1.04	90.9	75-125	0.966	20	L402459-16			WG422230
Silver	mg/l	0.0366	0.483	2.929*	75-125	172.*	20	L402459-16			WG422230
Barium	mg/l	1.68	1.67	97.3	75-125	0.597	20	L402485-12			WG422280
Cadmium	mg/l	1.13	1.12	100.	75-125	0.889	20	L402485-12			WG422280
Chromium	mg/l	1.08	1.08	95.6	75-125	0.00	20	L402485-12			WG422280
Lead	mg/l	1.12	1.10	99.1	75-125	1.80	20	L402485-12			WG422280
Manganese	mg/l	1.93	1.94	95.6	75-125	0.517	20	L402485-12			WG422280
Nickel	mg/l	1.17	1.16	96.8	75-125	0.858	20	L402485-12			WG422280
Selenium	mg/l	1.09	1.08	96.5	75-125	0.922	20	L402485-12			WG422280
Silver	mg/l	0.0432	0.0019	3.823*	75-125	183.*	20	L402485-12			WG422280
Arsenic	mg/l	0.478	0.372	843.034*	75-125	24.9*	20	L402611-01			WG422231
Lead	mg/l	1.09	1.07	96.5	75-125	1.85	20	L402485-23			WG422232
Arsenic	mg/l	0.132	0.136	126.984*	75-125	2.99	20	L402485-12			WG422088

Batch number /Run number / Sample number cross reference

WG421706: R739866: L402485-21 22 23 33 34
 WG421672: R740549: L402485-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20
 WG421739: R741466: L402485-24 25 26 27 28 29 30 31 32
 WG421693: R742147: L402485-01 02 03 04 05 06 07 08 09 10 11
 WG421694: R742148: L402485-12 13 14 15 16 17 18 19 20 21 22 23
 WG421799: R743086: L402485-12
 WG422352: R746227: L402485-22 23
 WG422230: R746607: L402485-01 02 03
 WG422280: R747587 R747588: L402485-05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 04
 WG422231: R748866: L402485-18 19 20 21 22 23
 WG422088: R750808: L402485-01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17

* * Calculations are performed prior to rounding of reported values .

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ENVIRONMENTAL SCIENCE CORP.

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Quality Assurance Report Level II

L402485

June 17, 2009

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

**Aquaterra Environmental
Solutions, Inc.**
7311 West 130th Street. Ste. 100
Overland Park, KS 66213

Alternate billing information:

Report to:
Susan L. McCart

Email:
smccart@aquaterra-env.com

Project
Description: **QAS Marsh Avenue**

City/State
Collected
KCMO

Phone: **(913) 681-0030**
FAX: **(913) 681-0012**

Client Project #:
2641.10-300

Lab Project #

AOUAOPKS-OASMARSH

Collected by (print):
Bryan Ross

Site/Facility ID#:

P.O.#:

Collected by (signature):
Bryan Ross

Rush? (Lab MUST Be Notified)

- Same Day 200%
- Next Day 100%
- Two Day 50%
- Three Day 25%

Date Results Needed

Email? No Yes
FAX? No Yes

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time		1,4-Dioxane 40mL Amb-HCl	Metals 500mL HDPE-HNO3	V8260AP9 40mL Amb-HCl	V8260AP9 40mL Amb-HCl-Blk		Remarks/Contaminant	Sample # (lab only)
GW-1	<i>Grab</i>	GW	9.55	5/11/09	1425	3	X	X					L402495-01
GW-5		GW	6.99	5/11/09	1620	3	X	X					-02
GW-6B		GW	16.68	5/12/09	1225	3	X	X					-03
GW-7		GW	15.92	5/11/09	1535	3	X	X					-04
GW-8B		GW	14.96	5/12/09	1800	3	X	X					-05
GW-8C		GW	13.04	5/12/09	1820	3	X	X					-06
GW-9B		GW	17.70	5/12/09	1715	3	X	X					-07
GW-10B		GW	16.62	5/12/09	1645	3	X	X					-08
GW-10C		GW	13.26	5/12/09	1610	3	X	X					-09

*Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature) <i>Bryan Ross</i>	Date: 5/13/09	Time: 1200	Received by: (Signature) <i>St. Schellin</i>	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: <i>OK</i>	(lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 57°c	Bottles Received: 93+16	COC Seal Intact: <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>AJ</i>	Date: 5/14/09	Time: 0745	pH Checked: <input type="checkbox"/> NCF: <input type="checkbox"/>

Chain of Custody

Page **1** of **4**

D011

Prepared by:

ENVIRONMENTAL

SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (800) 767-5859
FAX (615) 758-5859

Acctnum: **AOUAOPKS** (lab use only)

Template/Prelogin **T50808 P281808**

Cooler #: **5-41**

Shipped Via: **FedEx Ground**

**Aquaterra Environmental
Solutions, Inc.**
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

Alternate billing information:

Report to:
Susan L. McCart

Email:
smccart@aquaterra-env.com

Project
Description: **OAS Marsh Avenue**

City/State
Collected

KCMO

Phone: (913) 681-0030
FAX: (913) 681-0012

Client Project #:
2641.10-300

Lab Project #

AOUAOPKS-OASMARSH

Collected by (print):
Bryan Ross

Site/Facility ID#:

P.O. #:

Collected by (signature)

Rush? (Lab MUST Be Notified)

Same Day 200%

Date Results Needed

Next Day 100%

No. of Contrs

Two Day 50%

Email? No Yes

Three Day 25%

FAX? No Yes

Immediately
Packed on site N Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Contrs	14-Dioxane 40ml Amb-HCl	Metals 500ml HDPE-HNO3	V8260AP9 40ml Amb-HCl	V8260AP9 40ml Amb-HCl-Blk
GW-11A	<i>Grab</i>	GW	16.62	5/12/04	0930	3	X X			
GW-11B		GW	23.68	5/12/04	1010	3	X X			
GW-11C		GW	18.86	5/12/04	1030	3	X X			
GW-12A		GW	15.25	5/12/04	1450	3	X X			
GW-12B		GW	-14.32	5/12/04	1510	3	X X			
GW-12C		GW	11.78	5/12/04	1530	3	X X			
PW-1		GW	7.81	5/12/04	1125	3	X X			
PW-2		GW	9.66	5/12/04	1130	3	X X			
PW-3		GW	12.38	5/12/04	1135	3	X X			

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature) <i>Bryan Ross</i>	Date: 5/13/04	Time: 1200	Received by: (Signature) <i>J. C. Johnson</i>	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: <input checked="" type="checkbox"/> Good <input type="checkbox"/> Seal Intact <input type="checkbox"/> N/A <input checked="" type="checkbox"/> (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 31°C Bottles Received: 93+24	COCs Seal Intact: <input checked="" type="checkbox"/> N/A
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Alvarez</i>	Date: 5/14/04 Time: 0715 pH Checked: <input checked="" type="checkbox"/> NCF	

Chain of Custody
Page 2 of 4

Prepared by:

ENVIRONMENTAL

SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (800) 767-5859
FAX (615) 758-5859

Acctnum: **AOUAOPKS** (lab use only)
Template/Prelogin **TS0808/P281808**
Cooler #: **5-4**
Shipped Via: **FedEX Ground**

Aquaterra Environmental Solutions, Inc.
7311 West 130th Street, Ste. 100
Overland Park, KS 66213

Alternate billing information:

Report to:
Susan L. McCart

Email:
smccart@aquaterra-env.com

Project Description: **QAS Marsh Avenue**

City/State Collected
KCMO

Phone: (913) 681-0030
FAX: (913) 681-0012

Client Project #:
2641.10-300

Lab Project #
AOUAQPKS-OASMARSH

Collected by (print):
Bryan Ross

Site/Facility ID#:

P.O. #:

Collected by (signature):
Bryan Ross

Rush? (Lab MUST Be Notified)

Same Day 200%

Date Results Needed

Next Day 100%

Email? No Yes

Two Day 50%

FAX? No Yes

Three Day 25%

Immediately Packed on Ice N Y

N Y

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Analysis/Container/Preservative	Remarks/Contaminant	Sample # (lab only)
PW-4	Grab	GW	12.55	5/12/09	1140	3	X X		-19
TRENCH		GW	12.55	5/12/09	1330	3	X X		-20
EFFLUENT		GW	—	5/12/09	1340	3	X X		-21
DUP-1		GW	—	5/12/09	1030	3	X X		-22
EB-1		GW	—	5/12/09	1845	3	X X		-23
MS		GW	—	5/12/09	1045	3	X X	From 11C	-12
MSD		GW	—	5/12/09	1045	3	X X	From 11C	-12
GW-8B		GW	14.94	5/12/09	1800	2	X		-24
GW-8C		GW	13.04	5/12/09	1820	2	X		-25

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH _____ Temp _____

Remarks: _____ Flow _____ Other _____

Relinquished by: (Signature) Bryan Ross	Date: 5/12/09	Time: 1200	Received by: (Signature) Shawn Schillings	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: OD	(lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 31°C Bottles Received: 93176	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Alvarez	Date: 5/14/09 Time: 0745 0900 AM	pH Checked: <input type="checkbox"/> NCF: <input type="checkbox"/>	

**Aquaterra Environmental
Solutions, Inc.**
7311 West 130th Street. Ste. 100
Overland Park, KS 66213

Alternate billing information:

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

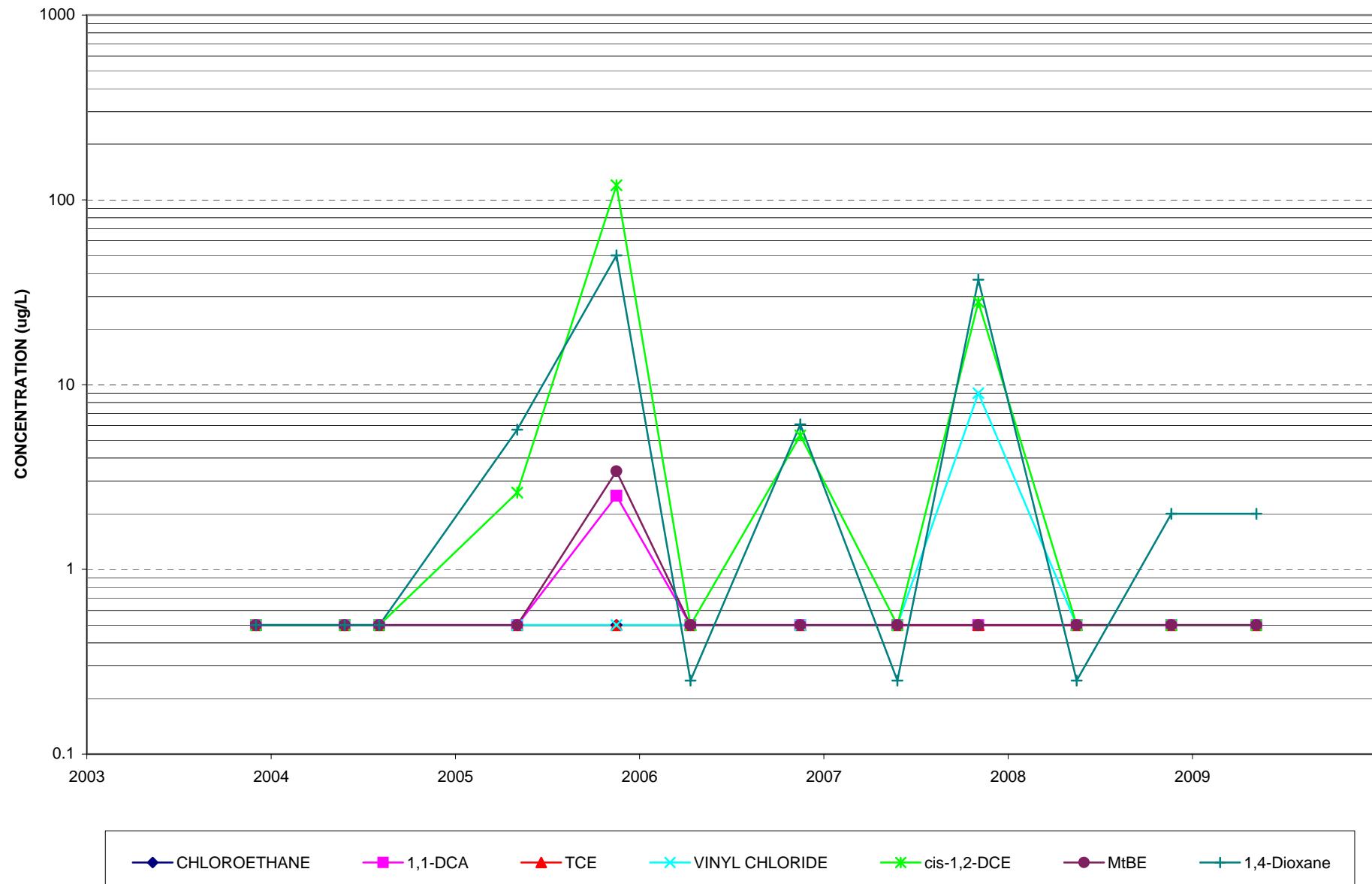
Flow Other

Relinquished by: (Signature) <i>Bryan Bess</i>	Date: 5/13/09	Time: 1200	Received by: (Signature) <i>Tom Schellman</i>	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: <input checked="" type="checkbox"/> (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 31.6 Bottles Received: 93124	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>AJL</i>	Date: 5/14/09 Time: 0725	pH Checked: <input checked="" type="checkbox"/> NC <input type="checkbox"/> 12

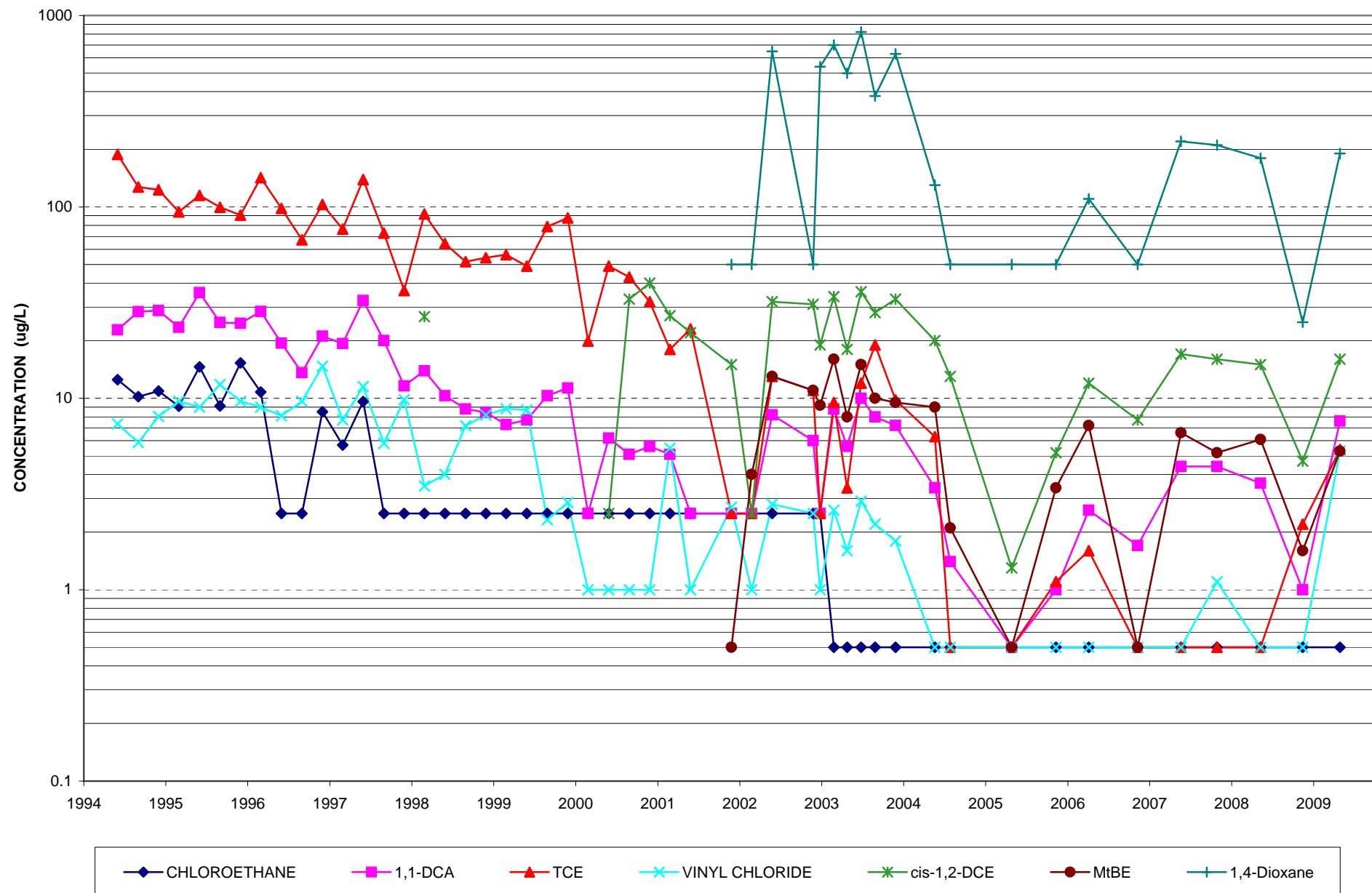
Appendix E

Time Series Charts

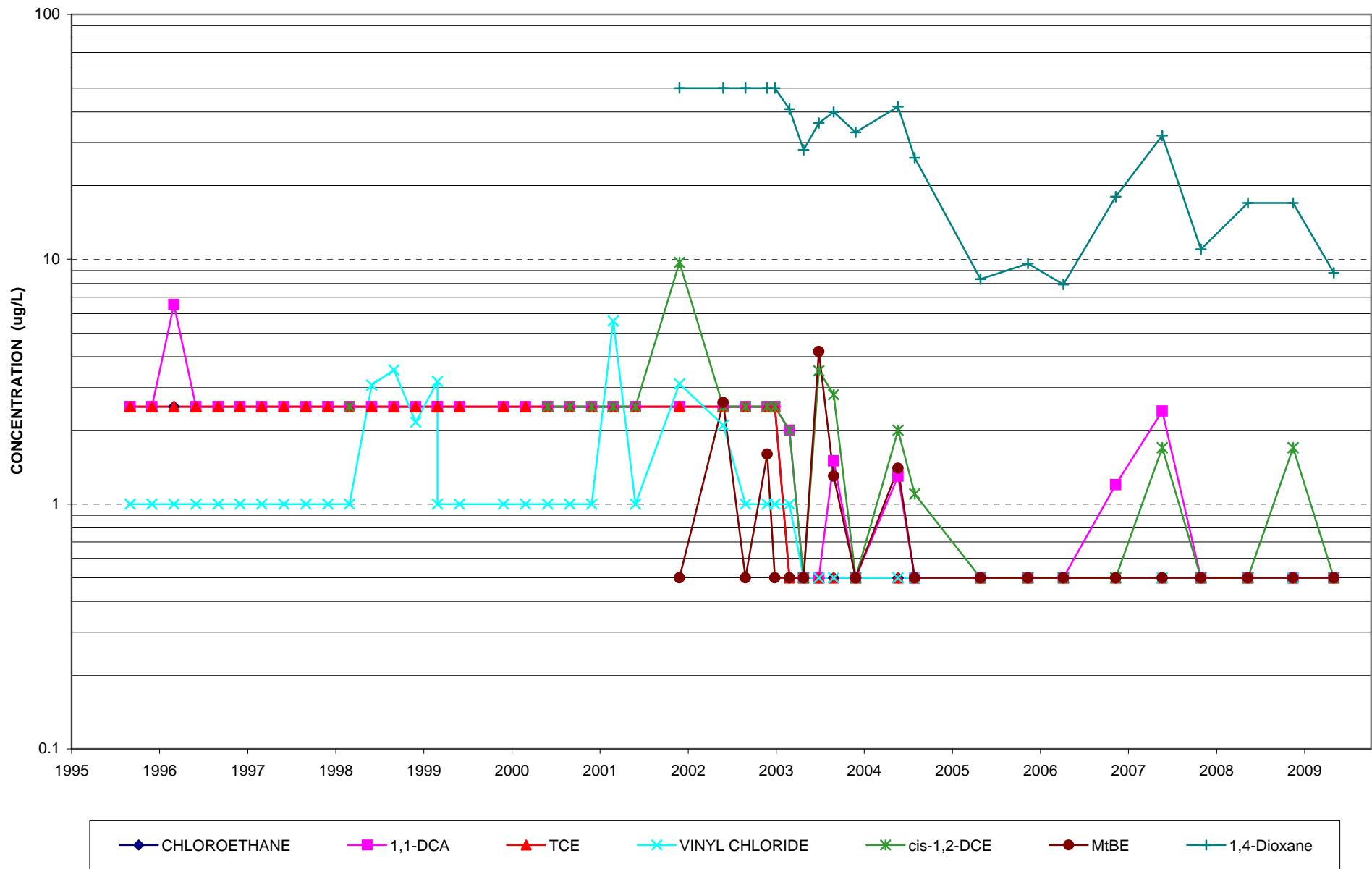
GW-12A



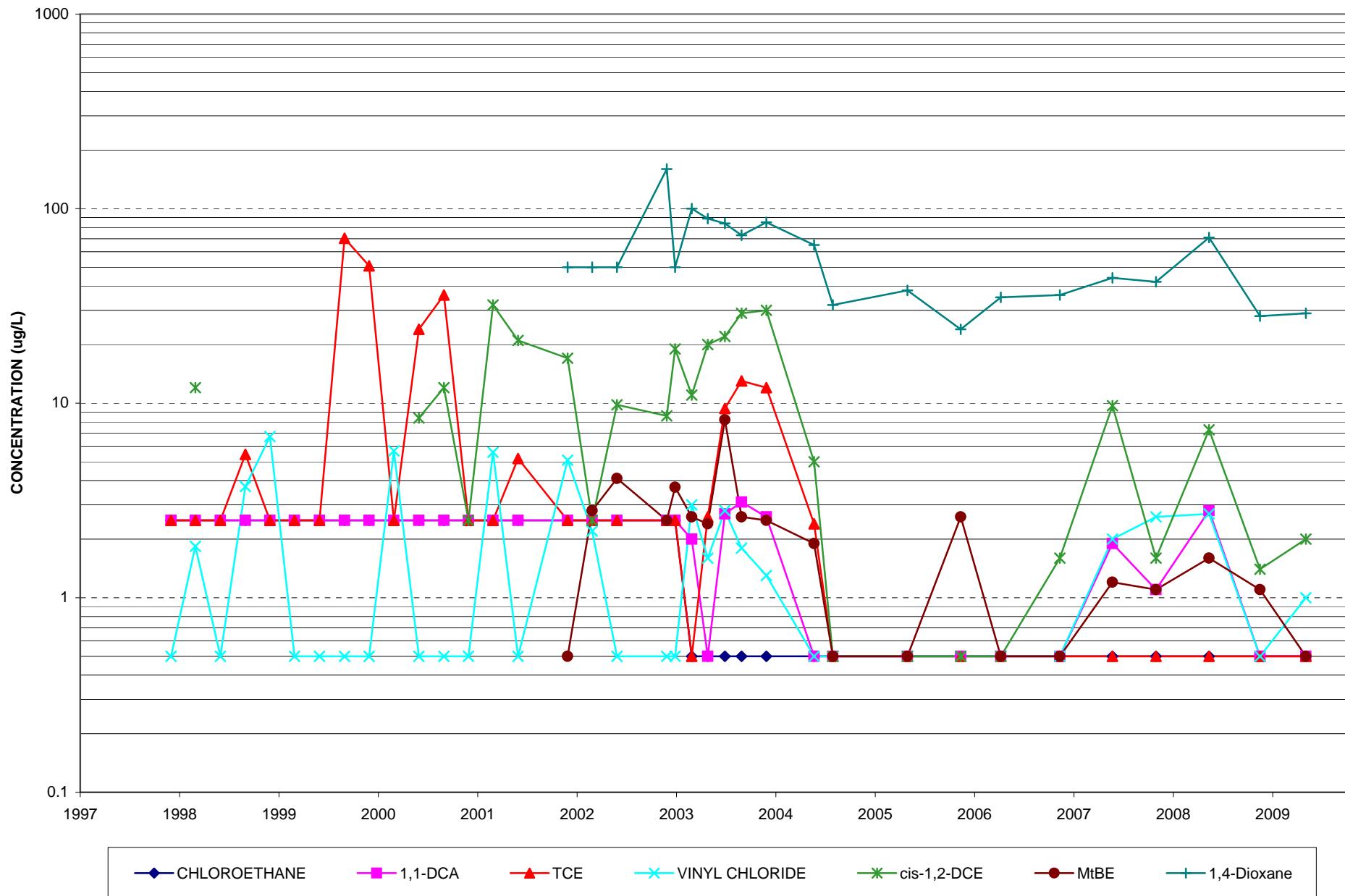
GW-6B



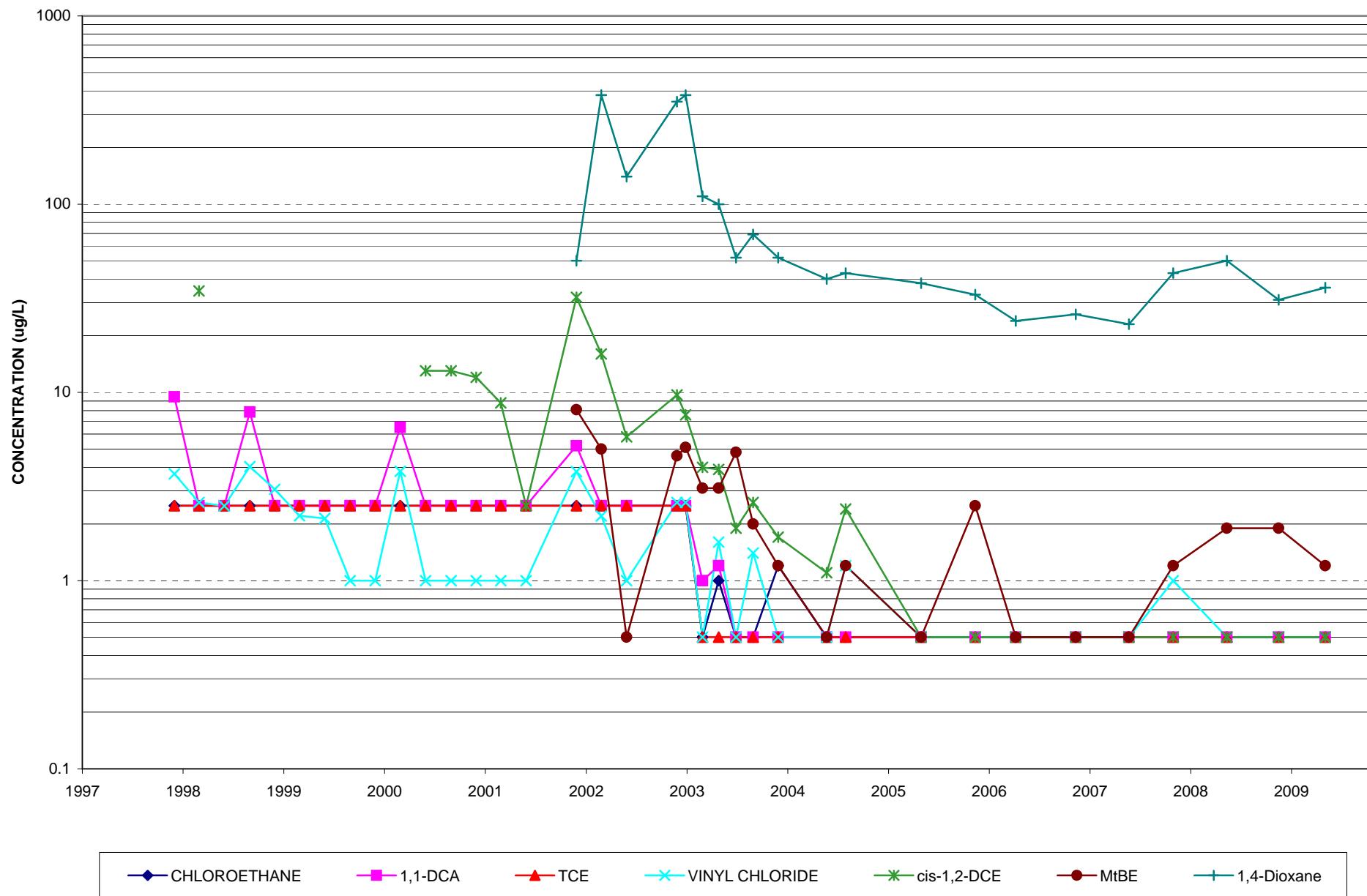
GW-8B



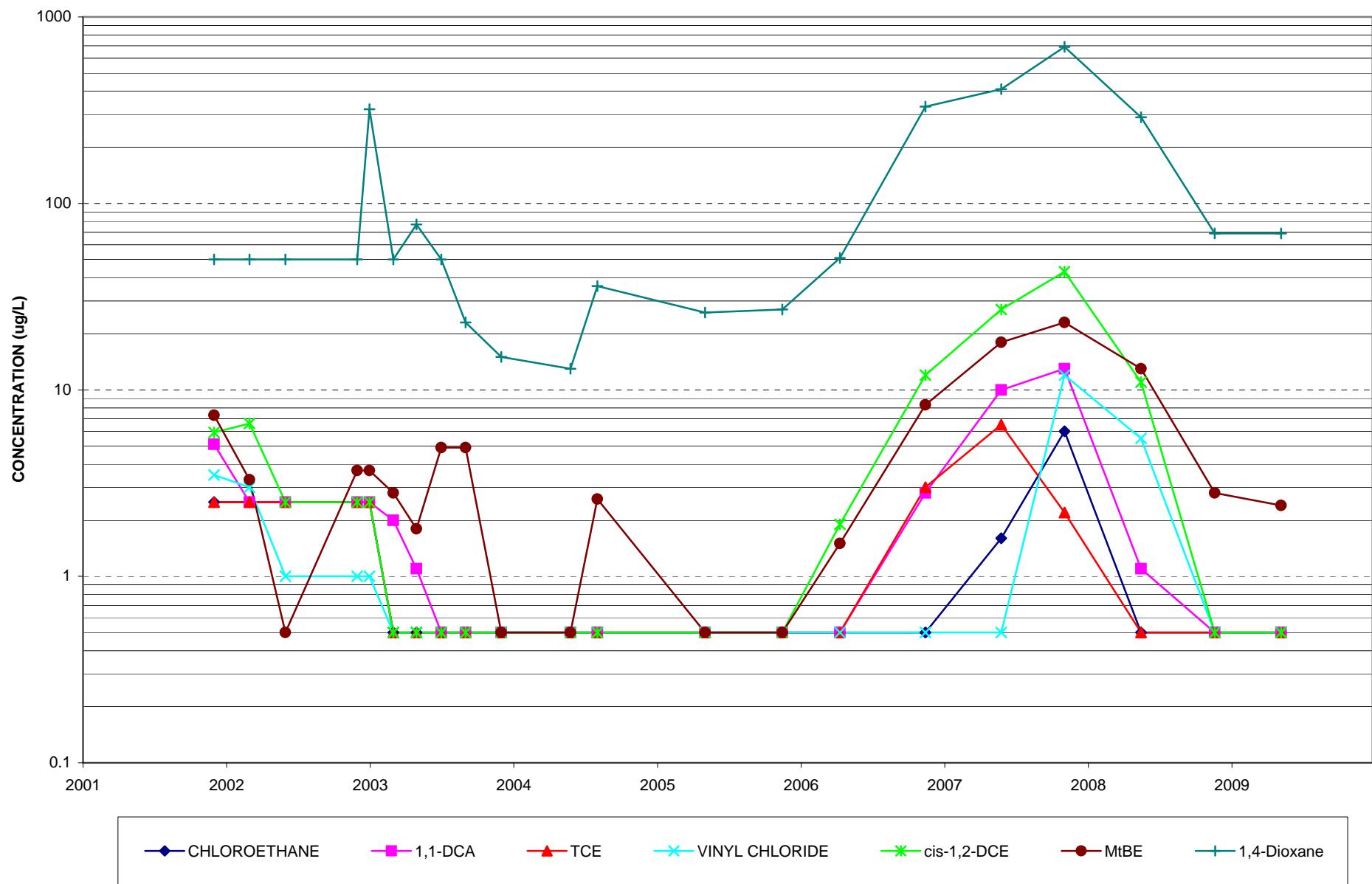
GW-9B



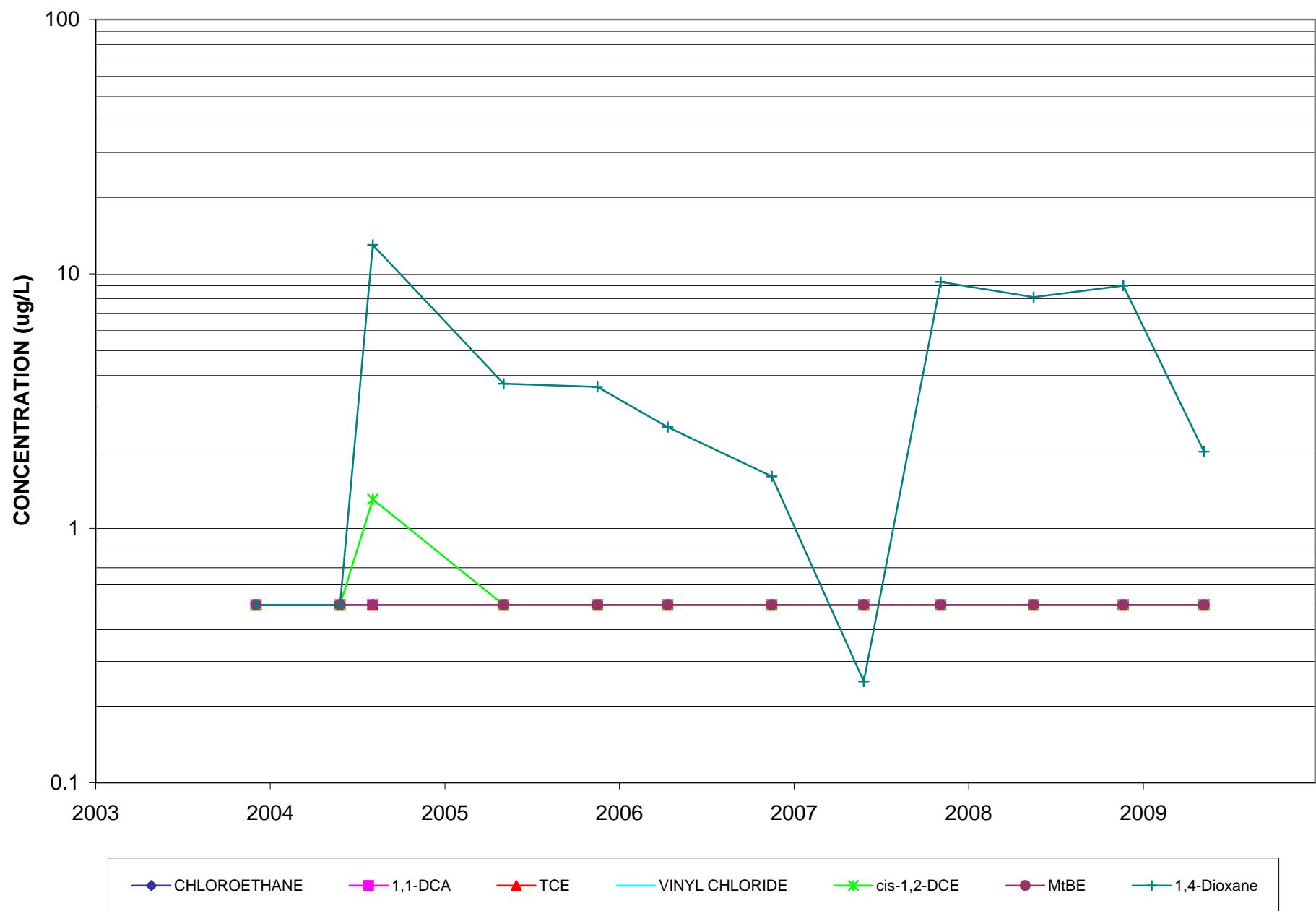
GW-10B



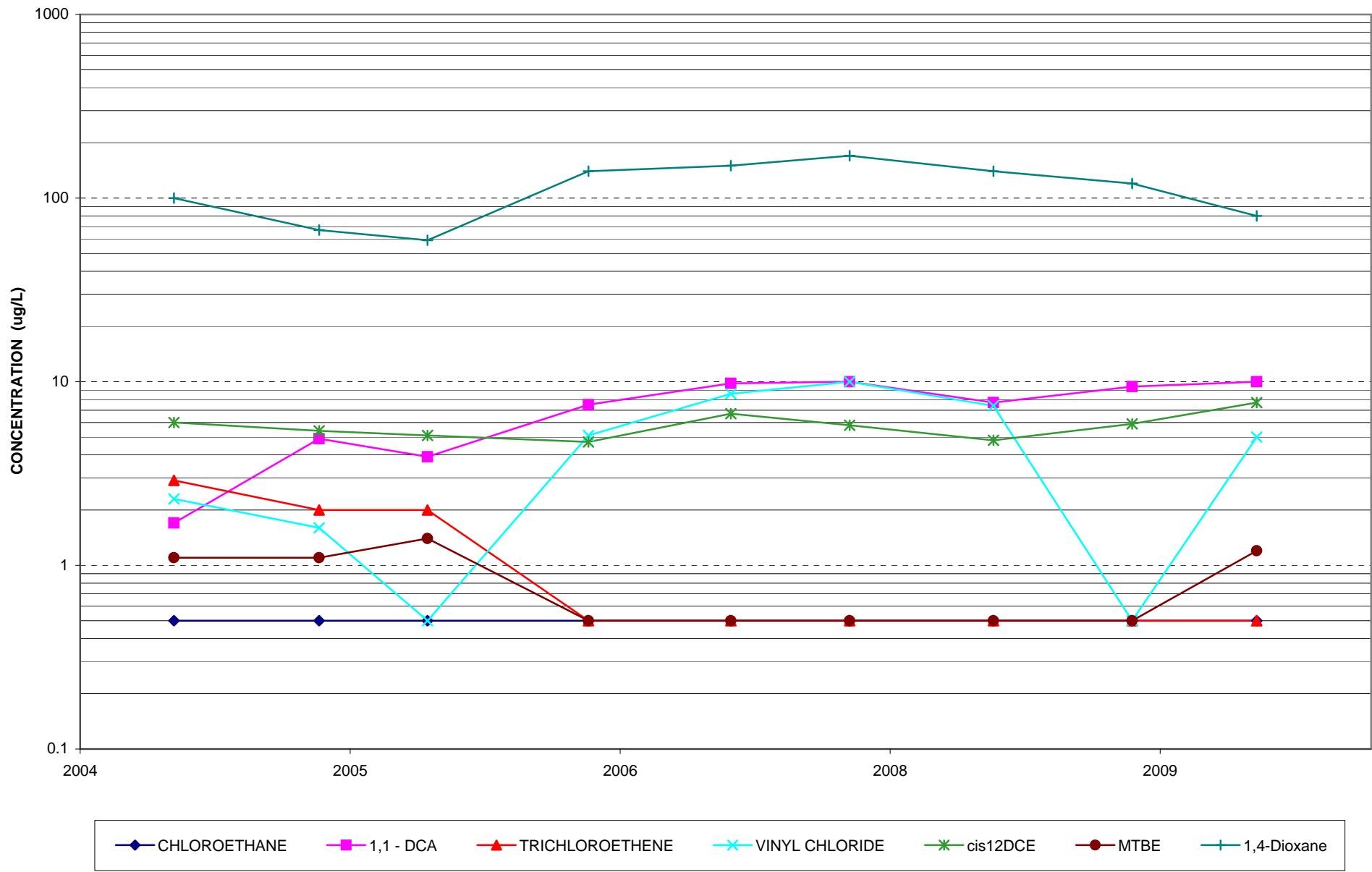
GW-11B



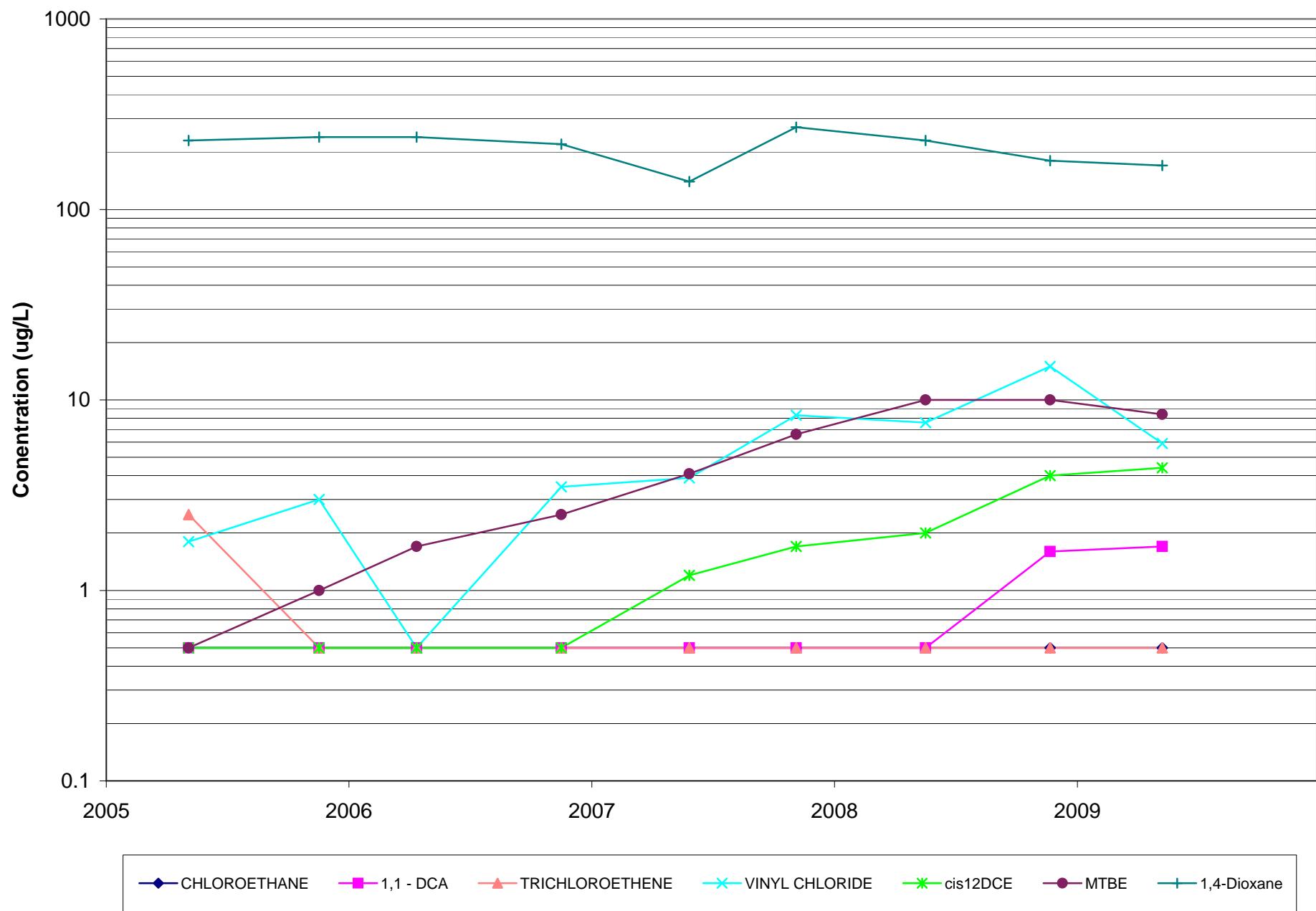
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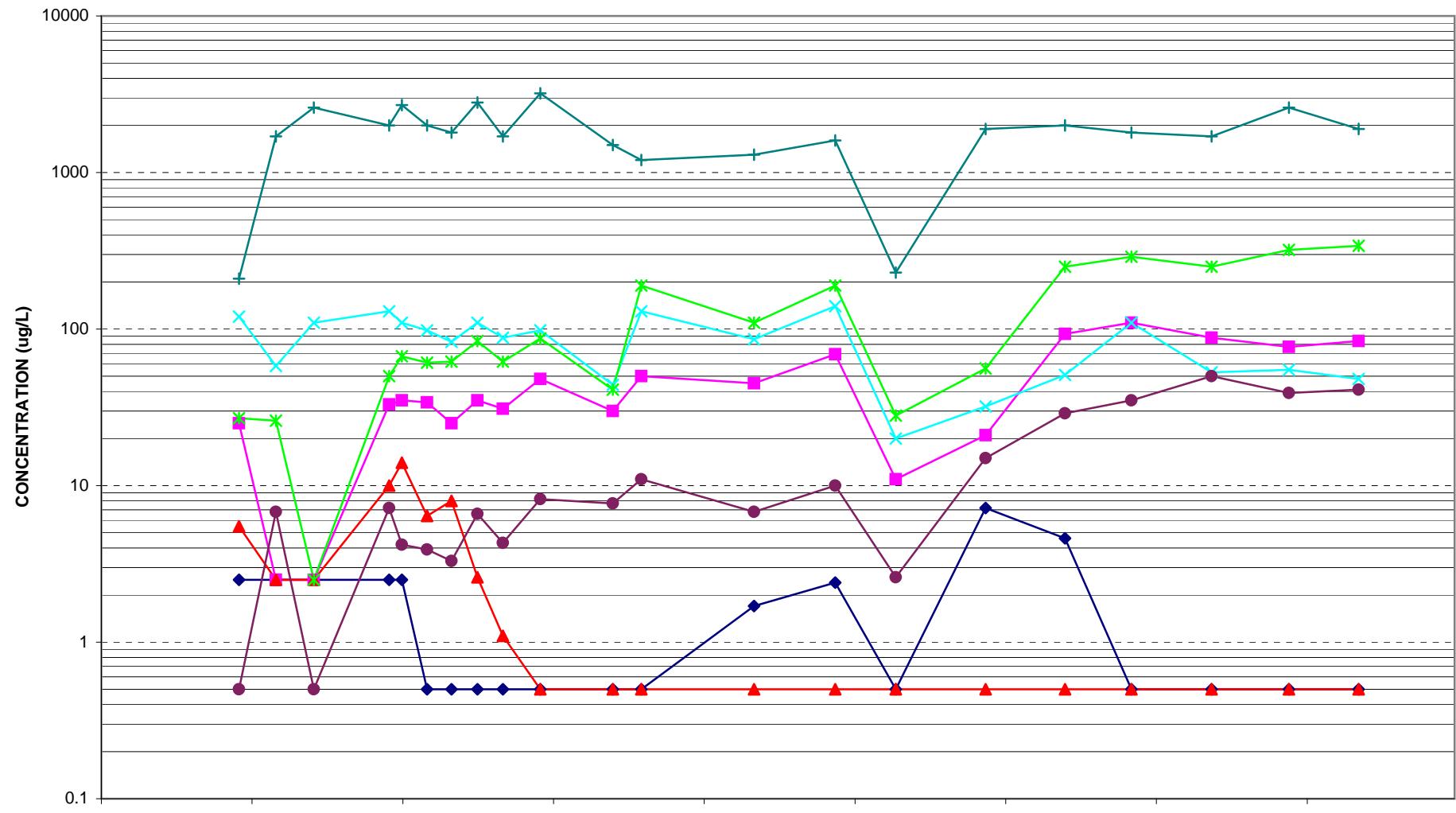
GW-8C



GW-10C



GW-11C



—♦— CHLOROETHANE —■— 1,1-DCA —▲— TCE —×— VINYL CHLORIDE —*— cis-1,2-DCE —●— MtBE —+— 1,4-Dioxane

GW-12C

